

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

aZ7914
.F63T46
1994

United States
Department of
Agriculture

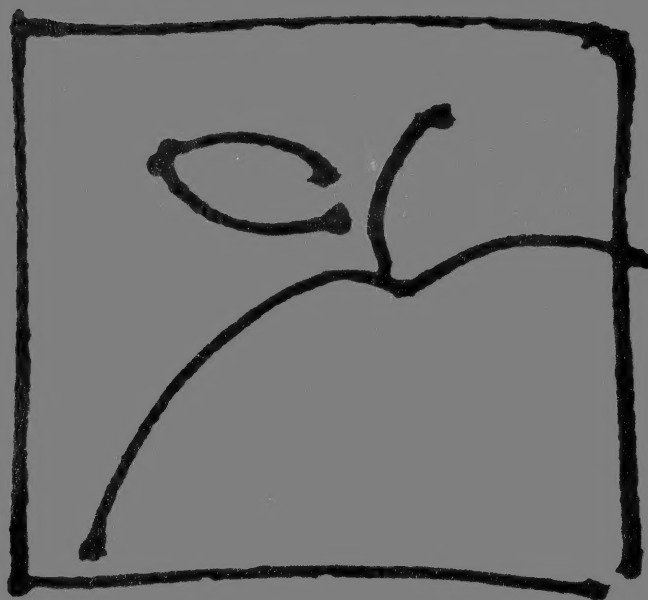
National
Library of
Medicine

Beltsville
Maryland
20705



Selected Electronic Sources of Food and Nutrition Information

September 1994



**United States
Department of
Agriculture**



National Agricultural Library

Selected Electronic Sources of Food and Nutrition Information

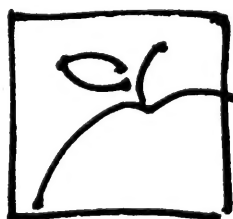
September 1994

**Rebecca Thompson
Information Centers Branch
National Agricultural Library**

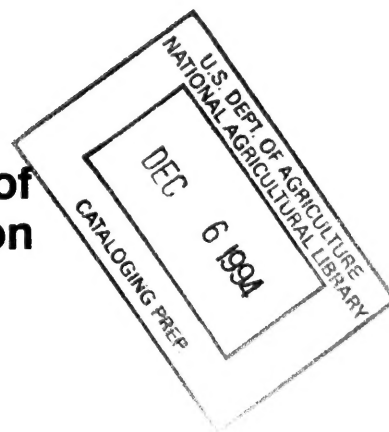
**Food and Nutrition Information Center
National Agricultural Library
10301 Baltimore Blvd., Rm. 304
Beltsville, Maryland 20705-2351**

**Phone: (301) 504-5719
TTY/TDD: (301) 504-6856
FAX: (301) 504-6409
Internet: fnic@nalusda.gov**

**This edition updates the May 1993 version compiled by Monika
Bussmann, Visiting Student, Department of Nutrition, Justus-Liebig
University, Giessen, Germany**



**Food &
Nutrition**



National Agricultural Library Cataloging Record:

Thompson, Rebecca

Selected electronic sources of food and nutrition information : September 1994.

1. Food — Databases — Directories. 2. Nutrition — Databases — Directories. 3. Information storage and retrieval systems — Handbooks, manuals, etc. I. Title.
aZ7914.F631.

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-5881 (voice) or (202) 720-7808 (TDD).

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

Contents

Introduction	1
Databases	
CDC Wide-ranging ON line D ata for E pidemiologic R esearch (CDC WONDER/PC)	4
Current R esearch I nformation S ystem (CRIS)	5
Food IND ustry D atabase (FIND)	8
International Food and Nutrition Database (IFAN)	10
Questions on University E xtension R egional R esource I nformation (QUERRI)	13
Technology Transfer Automated Retrieval System (Tektran)	15
U.S. Department of Agriculture Economics and Statistics System	16
Electronic Bulletin Board Systems	
Agricultural Library Forum (ALF)	20
Consumer Information Center B ulletin B oard System (CIC BBS)	23
Food and D rug A dministration B ulletin B oard System (FDA BBS)	25
FDA P rogram I nformation M aterial E lectronic C onnection (FDA PRIME Connection)	27
Nutrient D ata B ank B ulletin B oard (NDB BB)	28
National Institutes of H ealth I nformation Center B ulletin B oard System (NIH BBS)	31
Internet	
Introduction	33
Almanacs	36
Electronic Mailing Lists	38
Gophers	42
Other Access Points	
Cornell E xtension NET work (CENET)	49
Fedworld	51
Free-Nets	53
PENpages	56
Selected Fee-based Systems	
American School Food Service Association (ASFSA) Connection	59
ChefNet	60
Restaurant Association Network	62
Electronic Sources Resource List	63
Selected Commercial Service Providers	69

Introduction

Databases, electronic bulletin board systems, and the Internet (a worldwide computer network) are increasingly important sources of food and human nutrition information. The benefits of electronic information—around-the-clock accessibility, low cost, immediate availability, to name a few—have secured its place next to more traditional, paper-based resources. Sources selected for this publication offer a wide variety of food and nutrition information, such as economic data, recipes, research results, press releases, regulations, food composition, and much more. This publication does not include fee-based bibliographic databases or Compact Disc-Read Only Memory (CD-ROM) products.

Most of the access points listed in this publication are government-sponsored; others are projects of educational institutions, private industry, or other non government entities. Except for the Selected Fee-based Systems that start on page 59, access to these resources is free. The only cost to the user is the telephone call or the Internet connection required to reach them.

Each resource listing provides general information about food and nutrition content and basic instructions for access unless preregistration is required. If you are unfamiliar with the Internet, it would be a good idea to read the Internet sections **first**. While most of the systems can be reached by modem, a few are only accessible through Internet.

Constant changes and the infinite array of information make it impossible to list all sources of food and nutrition information available on the Internet. The intent of the Internet section in this publication is to lead users to selected food-and-nutrition-oriented areas and introduce basic Internet tools. For more exhaustive coverage of the Internet, look to the many print and electronic resources available (see Electronic Sources Resource List, page 63).

The instructions for reaching the electronic sources in this publication were correct at the time of printing. Because electronic information frequently changes, we cannot guarantee that these instructions will stay the same over time. If you have trouble connecting, we suggest you contact the sponsoring organization for assistance.

About FNIC

The Food and Nutrition Information Center (FNIC) is located at the National Agricultural Library (NAL) in Beltsville, MD. It was established in 1971 as a national repository of training materials for USDA Child Nutrition Program professionals.

Today, FNIC assists all individuals interested in food and human nutrition. Nutritionists and information specialists help consumers, educators, health professionals, the media, researchers,

and others locate information and resources. FNIC staff provide information on human nutrition, nutrition education, food service management, food labeling, food safety, foodborne illness, and food technology.

For more information about FNIC and its services, contact:

The Food and Nutrition Information Center
USDA, National Agricultural Library
10301 Baltimore Blvd., Rm. 304
Beltsville, MD 20705-2351

Voice: (301) 504-5719
FAX: (301) 504-6409
Internet: fnic@nalusda.gov

Databases

Electronic databases are computerized collections of information, usually covering a specific subject area, that are arranged to facilitate efficient retrieval and use. This section describes the following databases:

- CDC Wide-ranging **ON**line **D**ata for **E**pidemiologic **R**esearch (CDC WONDER/PC)
- Current **R**esearch **I**nformation **S**ystem (CRIS)
(includes **H**uman **N**utrition **R**esearch and **I**nformation **M**anagement **S**ystem (HNRIMS), and
Inventory of **C**anadian **A**GR**I**-Food **R**esearch (ICAR))
- Food **I**ndustry **D**atabase (FIND)
- International **F**ood and **N**utrition **D**atabase (IFAN)
- Questions on **U**niversity **E**xtension **R**egional **R**esource **I**nformation (QUERRI)
- Technology Transfer Automated Retrieval System (Tektran)
- U.S. Department of Agriculture Economics and Statistics System

CDC WONDER/PC

CDC WONDER/PC (Wide-ranging **ON**line **D**ata for **E**pidemiologic **R**esearch) is a software program that creates an electronic link between the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC) and public health practitioners including hospitals, clinics, universities, foundations, and state and local health departments.

The program provides access to epidemiologic and public health datasets from the National Centers for Health Statistics (NCHS) and the CDC. Datasets, on topics such as diabetes and cancer incidence, can be exported and analyzed using a software program such as Lotus 1-2-3 or dBase.

Nutrition information for consumers is located in the "Info Exchange Topics for Discussion" feature of the program. This feature allows the user to join a TOPIC. The user can send messages to the group, scan message subjects, and mail messages to an e-mail address. Anyone can contact the CDC WONDER/PC Administrator and request to have a new TOPIC created. Currently there are two TOPICS focusing on nutrition: Chronic Disease and Nutrition; and Nutrition and Maternal & Child Health.

The program also has keyword search capability to locate documents such as the "Morbidity and Mortality Weekly Report (MMWR)." This report includes descriptions of CDC programs, statistics on infectious diseases, health promotion information, and other subjects.

Costs: There is no charge for the CDC WONDER/PC software or for accessing CDC. Direct dial costs may apply.

Registration: Preregistration is required to use CDC WONDER/PC. Request an account, software, and user manual from CDC WONDER/PC User Support at (404) 332-4569.

Access: To access CDC WONDER/PC you need a computer, modem, and communications software. The CDC WONDER/PC software is available from the CDC upon registration.

Contact:
CDC WONDER Customer Support
Centers for Disease Control and Prevention
1600 Clifton Rd., NE
Mailstop F-51
Atlanta, GA 30333

Voice: (404) 332-4569
FAX: (404) 488-7593

Current Research Information System (CRIS) Database

The Current Research Information System (CRIS) database, established by the U.S. Department of Agriculture (USDA), serves as the USDA documentation and reporting system for publicly supported agricultural, food and nutrition, and forestry research in the United States. CRIS includes the Human Nutrition Research and Information Management System (HNRIMS) and the Inventory of Canadian AGRI-Food Research (ICAR) database.

CRIS/USDA contains information on ongoing and recently completed projects sponsored or conducted primarily within the USDA and State university research system. Some 30,000 project summaries, including the latest progress reports and lists of recent publications coming out of the research, are maintained in the file on an ongoing basis.

The database also includes projects on human nutrition research. These are maintained in HNRIMS. Updated annually, the HNRIMS subfile of CRIS is prepared jointly by the USDA and the National Institutes of Health (NIH), U.S. Department of Health and Human Services (DHHS). The subfile currently contains about 4,000 summaries of human nutrition research projects conducted or sponsored by the NIH, the USDA, and other Federal agencies.

The ICAR database, produced by the Canadian Agricultural Research Council, contains thousands of research projects on agriculture, human nutrition, and biotechnology in Canada. ICAR is a subfile of CRIS.

Costs: There is no charge for using the combined CRIS/HNRIMS/ICAR database. Telecommunications access charges may apply.

Access: To access the combined CRIS/HNRIMS/ICAR database you need a computer and access to the Internet.

Internet (gopher):

- a. Gopher to **esusda.gov**.
- b. Select "Other Gopher Information Servers".
- c. Select "WAIS Based Information". [Note: See page 35 for more information on WAIS]
- d. Select "WAIS Databases sorted by letter".

- e. Select “U/”.
- f. Select “usdacris.src <?>”.
- g. Type a keyword and press <ENTER>. Combining keywords is not permitted.
- h. A list of documents containing your search term will be displayed. (Document numbers that begin with 7 and have titles in lower case letters are from ICAR; documents that begin with 8 are HNRIMS records; and documents that begin with 9 are CRIS records.)
- i. Use the cursor keys to move the arrow to the left of the document you wish to retrieve, then press <ENTER>.
- j. Select **p** to print, **s** to save the file to your system, or **m** to mail the document to an e-mail address. You also may instruct your communications software to capture the document as you scroll through it, or you can use the <PRINT SCREEN> key.
- k. Type **q** to quit.

Internet (WAIS):

- a. Telnet to **quake.think.com** or another WAIS client server (see page 35 for more information on WAIS)
- b. At the login prompt: type **wais** (It MUST be in lower case).
- c. At the prompt “Please type user identifier (optional, i.e., user@host)”: Enter your Internet address.
- d. At “TERM = (VT100)” prompt: press <ENTER>. You will see “Starting WAIS” on your screen.
- e. Press <ENTER>, then type **q**. The top of the screen will say “SOURCE SELECTION” and below that, “quake.think.com directory-of-servers”.
- f. **You first must retrieve the usdacris.src database from the directory of servers:**
 - 1. Type **w** to highlight the “KEYWORDS” prompt.
 - 2. At the “KEYWORDS” prompt: Type **usdacris**, then slowly press <ENTER> three times.
 - 3. “Search Results” will appear at the top of the screen.

Selected Electronic Sources of Food and Nutrition Information

4. Press the **<SPACE BAR>** to see a brief description of the database. Follow the directions at the bottom of the screen.
5. When the "Search Results" screen reappears, use the arrow keys to highlight **usdacris** (it already may be highlighted) and type **u**.
6. A note will appear at the bottom of the "Search Results" screen indicating that "usdacris" has been added to the source list.
7. Type **s** to get back to the source listing.
8. Highlight the **directory-of-servers** and press the **<SPACE BAR>** to deselect that source. The * that is to the left of the source should disappear. Use the arrow keys to highlight **usdacris**. Press the **<SPACE BAR>** to select that source. An * should appear to the left of the line.

g. You are now ready to search the combined CRIS/HNRIMS/ICAR Database:

1. Type **w** to highlight the "KEYWORDS" prompt.
2. At the "KEYWORDS" prompt: press **<BACKSPACE>** to move the cursor so that there is no space between the "KEYWORDS" prompt and the cursor. Then type your search term (e.g., diet) and press **<ENTER>**. Combining keywords is not permitted.
3. The system will retrieve records that contain your keyword. The default number of records is 40. (Reset the database parameters to change the default. To do this type the letter **o** to reach the "options menu," then cursor to "maxiitems." Press the **<SPACE BAR>** to select. Enter a new value and press **<ENTER>**.)
4. The system will search the combined CRIS/HNRIMS/ICAR database and display titles of records ranked by the number of occurrences and location of your search term. Highlight any title and press **<ENTER>** to display the record. To print a record, you must either press **<PRINT SCREEN>** or instruct your communications software to capture the record as it is displayed.
5. To perform another search, press **w** to return to the "KEYWORDS" prompt.
6. To exit the system completely, type **q**.

Contact:

Current Research Information System
USDA/Cooperative State Research Service
National Agricultural Library
10301 Baltimore Blvd., 5th Floor
Beltsville, MD 20705-2351

Voice: (301) 504-6846
FAX: (301) 504-6272

Food Industry Database (FIND)

Food INDustry (FIND) is a full-text database of the Food Bureau of Agriculture and Agri-Food Canada. It provides information on food industry topics such as production, markets, trends, research, programs, and developments.

Material available on FIND is contributed by Canadian governmental agencies, Canadian universities, the Canadian food industry, and international organizations. Access to reports, articles, newsletters, tables, and technical papers is available 24 hours a day.

Information in FIND is divided into the following subject areas:

ASSIST:	Assistance programs
CALENDAR:	Calendar
CANREGS:	Canadian Regulations
COMMUNIC:	Communications from the Department
CONSUMER:	Market and Consumer Trends
CONTACTS:	Non-governmental organizations
CROPS:	Specialty Crops
ENVIRONM:	Environmental issues
ESTAB:	Food Research Establishments
ICAR:	Inventory of Canadian Agri-Food Research
INTERNAT:	International Markets
REPORTS:	Reports
RETAIL:	Retail and Food Service
USREGS:	United States Regulations

“Reports” contains many documents about nutrition, food safety, and food irradiation.

“Contacts” includes addresses, phone numbers, and mandates for more than 180 non government organizations in the agri-food industry, as well as references to databases, food processing firms, and Canadian directories.

You can perform keyword searches in the database and download documents from it; the “User Guide” provides instructions.

There is also a “Mail” feature that enables you to communicate with other users.

Costs: There is no charge for using the FIND database. Direct dial costs may apply.

Registration:

Preregistration is required to access FIND. Contact the Agriculture and Agri-Food Canada to receive an ID, password, and further instructions.

Selected Electronic Sources of Food and Nutrition Information

Access: To access FIND you need a computer and modem. ONLAN communications software is recommended for use with the database. The ONLAN software package and installation instructions are available from Agriculture and Agri-Food Canada upon registration.

For more information, or to request an ID, password, and "User Guide" for the FIND database, contact:

Jeff Lowery
Food Bureau
Market and Industry Services Branch
Agriculture and Agri-Food Canada
Room 5112
Sir John Carling Building
930 Carling Ave.
Ottawa, Ontario
Canada K1A 0C5

Voice: (613) 957-4347 ext. 3195
FAX: (613) 992-0921

International Food and Nutrition Database (IFAN)

The International Food and Nutrition Database (IFAN) is part of the PENpages electronic information system (see page 56) supported by host computers at The Pennsylvania State University. Information in IFAN is provided by nutrition and health professionals of the Pennsylvania State University, USDA's Food and Nutrition Information Center at the National Agricultural Library, Colorado State University, and others worldwide.

IFAN is a full-text database containing a wide range of documents for health professionals and consumers. These include newsletters (e.g., *Food for Thought*, and *Food Science Corner*), position papers, fact sheets, bibliographies, reviews, and other nutrition-related materials. Topics covered include dietary guidance, food labeling, nutrition education, sports nutrition, eating disorders, weight control, and more.

Costs: There is no charge for using the IFAN database. Direct dial costs or telecommunications access charges may apply.

Access: The IFAN database can be accessed via the Internet; or by computer, modem, and communications software that is VT-100 or VT-102 compatible.

Modem:

- a. Dial the phone number: (814) 863-4820.
- b. After you are connected, press <ENTER> until the prompt "psupen>" is displayed.
- c. Type **connect pen**.
- d. At the prompt "Username:" type the 2-letter abbreviation for your state (e.g., MD, VA) or type **world** if you are accessing IFAN from outside the U.S.
- e. After the welcome message, press <ENTER> to get to the PENpages System Menu, then choose PENpages.
- f. To connect to the IFAN database, select Option #3: "General Information (Menu)."
- g. From the "PENpages Main Menu" select "International Food and Nutrition Database". You will see a list of available topics. Select the number of the topic of interest. (Follow instructions below to use the "Keyword Search" option.)

For example, to find publications of USDA's Food and Nutrition Information Center, select Option 4: "Food and Nutrition Information Center (FNIC) Menu".

Selected Electronic Sources of Food and Nutrition Information

- h. Press **Control-b** to return to previous menus. Press **Control-e** to exit the menu structure. Then select the logoff option. At the "psupen>" prompt: type **logout**.

Internet (telnet):

- a. Telnet to **psupen.psu.edu**.
—> Follow modem instructions above at step d.

Keyword Search Procedure:

The PENpages keyword search option allows users to search for documents by subject or specific document type. All keywords are singular and a hyphen joins two-word keywords.

Example:

If you are looking for the *Nutri-Topics* about sensible nutrition from the Food and Nutrition Information Center (FNIC) follow these steps:

- a. Select the Keyword Search option from the "PENpages Menu."
- b. At the "Enter Keyword" prompt: type the keyword—> **FNIC**.
- c. Select a keyword option from the list and press <**ENTER**>. Number 3 is the default.
- d. You will get a response giving the number of documents with that keyword. Then you can:
 1. Type **l** and press <**ENTER**> to list the document titles.
 2. a) To reduce your search: type **r**, then press <**ENTER**>.
b) To expand your search: type **e**, then press <**ENTER**>.

In either case, you then type a second keyword to combine with the first. [At this point you also can select "S" to search again, "D" for options, or "?" for help.]

- e. Select the number of the document you wish to view from the list of titles.
- f. Type **@** at any prompt to exit the Keyword Search option.

HINTS: **Control-s** stops scrolling a document
 Control-q begins scrolling a document again

If shown on the bottom of the screen, these options also may be activated:

Control-b returns to the previous menu

Control-e exits IFAN.

For more information or to contribute information to the IFAN database, contact:

Victoria M. Getty, IFAN editor
Penn State Nutrition Center
417 East Calder Way
University Park, PA 16801-5663

Voice: (814) 865-6323
FAX: (814) 865-5870
Internet: psnutrition@psupen.psu.edu

QUERRI (Questions on University Extension Regional Resource Information)

QUERRI is a bibliographic database supported by the Cooperative Extension Services of the North Central states (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin). It provides information about written and audiovisual educational materials on agriculture, community resource development, 4-H, and home economics.

Included are descriptions of publications, bulletins, contacts, menus, recipes and other resources. The food and nutrition information is related to family and consumer issues. For example, topics include food safety, pesticides, home food preservation, child nutrition, and nutrition education. Keyword searches of the database can locate materials on a specific topic. Order copies of the listed materials from the producing institutions.

Costs: There is no charge for using the QUERRI database. Direct dial costs or telecommunications access charges may apply.

Access: QUERRI may be accessed via the Internet; or by computer, modem and communications software that is VT-100 or VT-102 compatible.

Modem:

- a. To access the Iowa State University microcomputer dial: **515-294-[your baud speed]**. (For example, for a 2400 baud modem dial 5152942400.) Communications software settings are: 8 data bits, 1 stop bit, no parity, full duplex. QUERRI supports modem speeds of 1200, 2400, and 9600 bps.
- b. At the "DIAL:" prompt type **exnet**. (If the answer is "busy", try again.) Login as "querri".
- c. QUERRI will ask for some introductory information such as your location and the purpose of your call. Then a main menu will give you access to a search menu, information screens, a bimonthly update of new records, etc.
- d. First time users should select "How to Use QUERRI" from the main menu, and go through the short tutorial.
- e. If you are looking for recently added materials you also may select "Bimonthly Database

Update of New Resources” from the main menu. Then select “Family & Consumer Science” at the end of the update to find information about “Food and Nutrition” and “Human Health.”

- f. To conduct a keyword search of the database, enter the Search Menu and select “Begin New Search”. The database is searched by scrolling through a keyword list. Use the cursor and page keys to navigate the list, or type in a keyword. Press <ENTER> when the word you want to choose is highlighted. QUERRI will list the numbers of those records that match the keyword. You may now choose to display all the matching titles. Choose a specific title to display complete bibliographic information for that resource. During your session, you can save any number of these complete “information screens” and QUERRI will give you the option of sending the saved records to your e-mail address when you exit through the main menu.
- g. To exit type **r** at each menu until you are back to the main menu. Select “Exit”. Now the system prompts you to explore some of its other features.

Internet (telnet):

- a. Telnet to **exnet.iastate.edu**.
 - b. At the login prompt type **querri** (lower case).
- > Follow modem instructions at step c.

Internet (gopher):

- a. Gopher to **esusda.gov**.
 - b. From the “Root gopher server: esusda.gov” menu, select “Information Servers -- Cooperative Extension System (CES)”.
 - c. Select “QUERRI - Database of Extension Resources <TEL>”.
- > Follow modem instructions at step b.

For further information contact:

Sorrel Brown, Coordinator
Iowa State University
B-10 Curtiss Hall
Ames, IA 50011

Voice: (515) 294-8802
FAX: (515) 294-4715
Internet: x1querri@exnet.iastate.edu

Technology Transfer Automated Retrieval System (TEKTRAN)

The TEKTRAN database is available from the Agricultural Research Service (ARS) of the U.S. Department of Agriculture.

TEKTRAN contains information about the latest studies in agriculture, food, and human nutrition. The research results are provided as brief interpretive summaries and technical abstracts. For example, the user will find studies conducted by the Food and Nutrition Service, Food Safety and Inspection Service, Food and Drug Administration, the National Institutes of Health, and the former Human Nutrition Information Service (currently ARS).

Costs: There is no charge for using the TEKTRAN database. Direct dial costs or telecommunications access charges may apply.

Registration: Preregistration is required to access TEKTRAN. Contact the address below to receive a login ID, password, and further instructions.

Access: To access TEKTRAN you need a computer, modem and the suitable communications software (VTerm or CROSSTALK are recommended).

To request login, password and instructions for the TEKTRAN database contact:

Agricultural Research Service, USDA
Bldg. 005, BARC-West, Rm. 415
Beltsville, MD 20705
Voice: (301) 504-5345

If you need technical support call: (301) 504-5198.

U.S. Department of Agriculture Economics and Statistics System

The U.S. Department of Agriculture Economics and Statistics System is a joint project of the Cornell University, Albert R. Mann Library; and the USDA, Economic Research Service (ERS), National Agricultural Statistics Service (NASS).

The system allows timely access to statistical data on a variety of agricultural subjects. Datasets are available on food-related topics such as food consumption and food expenditures. Examples of available topics include: "average annual household food use"; "food consumption"; "food expenditure, consumption, and price trends"; "food service as a share of food expenditures"; "food spending in American households"; and "world red meat and poultry consumption".

Data are assembled by the ERS, NASS. READ.ME files with each data set list the compiler of the data and a description of available data sets or tables. A keyword search of the READ.ME files will retrieve a list of data sets or tables on a specific topic. Most of the data sets/tables are in binary format; therefore, they cannot be transferred to your screen. To read the data sets/tables, you must use software such as Lotus 1-2-3 or Excel. The READ.ME file explains how to use or obtain the data.

The system is available 24 hours a day, seven days a week.

Costs: The data is in the public domain and access is free. Telecommunications access charges may apply.

Access: Statistics may be accessed on the Internet via gopher or telnet. To connect, search, and display files, you need a computer; an Internet connection; gopher or telnet capability; and software to read and analyze the data sets.

Internet (gopher):

- a. Gopher to **esusda.gov**.
- b. From the "Root gopher server: esusda.gov" menu, select "Other Gopher Information Servers/".
- c. Select "North America/".
- d. Select "USA/".
- e. Select "New York/".

Selected Electronic Sources of Food and Nutrition Information

- f. Select "Cornell University, Albert R. Mann Library/".
- g. Choose a subject, then select topics from the menus that follow. Or, follow the directions below for searching.
- h. When you reach the data sets (numbers appear in parenthesis behind titles), select one of interest, then see the READ.ME file for further instructions.

Internet (telnet):

- a. Telnet to **usda.mannlib.cornell.edu**.
- b. When prompted for a user ID, type **usda** (lower case).
- c. Choose a subject, then select topics from the menus that follow. Or, follow directions below for searching.
- d. When you reach the data sets (numbers appear in parenthesis behind titles), select one of interest, then see the READ.ME file for further instructions.

Keyword Search Procedure:

To search for statistics on food and nutrition information:

- a. Select "Index to README files <?>" from the main menu.
- b. Type a keyword(s) at the prompt and press <ENTER>.
- c. Select any data set on the list and press <ENTER>. A READ.ME file will display with information on the data set you selected, and how to obtain and use it. This information may be captured to a file or printed screen by screen.

NOTE: It is very helpful to select "USER GUIDES: How to Search and Save Data Sets/" from the topic list. This user guide for the system contains information about topics, commands, the ERS-NASS Electronic Data Products Catalog, and user support contacts.

For additional information contact:

Oya Y. Rieger
Numeric Files Librarian
Albert R. Mann Library
Cornell University
Ithaca, NY 14853-4301

Voice: (607) 255-7960
Internet: oyr1@cornell.edu

For information on the contents of the gopher, contact:

Data Management Staff
Economic Research Service
Room 1212
1301 New York Ave., NW
Washington, DC 20005-4788

Voice: (202) 219-0012
Internet: jimh@ers.bitnet

Electronic Bulletin Board Systems

Electronic Bulletin Board Systems (EBBS or BBS) are computerized systems that usually focus on a specific subject area and target audience. BBSs allow users to access or download (and sometimes supply or upload) publications, bibliographies, software, calendars, bulletins, and other resources related to a specific subject. Some may offer other features such as electronic mail or conferencing. This section describes the following BBSs:

- **Agricultural Library Forum (ALF)**
- **Consumer Information Center Bulletin Board System (CIC BBS)**
- **Food and Drug Administration Bulletin Board System (FDA BBS)**
- **FDA PRogram Information Material Electronic Connection (FDA PRIME Connection)**
- **Nutrient Data Bank Bulletin Board (ND BBB)**
- **National Institutes of Health Information Center Bulletin Board System (NIH BBS)**

Agricultural Library Forum (ALF)

The Agricultural Library Forum (ALF) is an electronic bulletin board system (BBS) produced by the National Agricultural Library (NAL) of the U.S. Department of Agriculture. Included is information on agricultural topics, and—in a special area called the FOOD subboard or conference—information on food, human nutrition, and nutrition education.

The Food and Nutrition Information Center (FNIC) at NAL provides the nutrition-related material on ALF. Examples of materials you will find are food labeling regulations, a calendar of food and nutrition meetings, and the FNIC publications list. You also can download the full text of FNIC bibliographies, fact sheets, and other publications. Other files contain the complete listings of items in three special databases maintained at FNIC: **Database of Nutrition Education Materials Developed by WIC** (ALF filename: wicdbase.txt), **Food Guide Pyramid Users Database** (ALF filename: pyramid.txt), and **National Exchange for Food Labeling Education Database** (ALF filename: foodlabl.txt).

Costs: There is no charge for using ALF. Direct dial costs or telecommunications access charges may apply.

Access: To access ALF you need a computer, modem, and communications software. You can connect to ALF directly by modem, by modem via FedWorld, or via Internet through FedWorld. (See FedWorld instructions on page 51 for more information.)

Modem:

- a. Dial one of the following phone numbers:

(301) 504-6510

(301) 504-5111

(301) 504-5496

(301) 504-5497

Communications software settings are: 8 data bits, 1 stop bit, no parity, full duplex. ALF supports modem speeds up to 14,400 bps. Set terminal emulation to none, ASCII, or TTY. [To access ALF via modem through FedWorld, follow instructions on page 51 (Fedworld modem instructions).]

- b. After ALF's welcome screen displays, enter and verify your name when prompted.

Note: The first time you access ALF, the system also will ask for your city and state. The ALF policy will scroll by. When prompted, type **r** to register, then enter a password. For the next three questions about your terminal and file transfer protocol, type **n** each time for “no” or “none”. Then enter your preference for Turbokeys. (Turbokeys is a feature that allows you to press a one-character command without pressing <ENTER> after it.)

Selected Electronic Sources of Food and Nutrition Information

- c. Announcements, ALF News Flashes, and the NAL Bulletin Menu will scroll by before the RBBS-PC Main Menu appears. (First-time callers should answer “**n**” to the “new bulletins” prompt as ALL bulletins will be new bulletins.)
- d. Select **j** for [J]oin Conferences. [Note: If you did not select the Turbokey option, you must press <ENTER> each time you enter a command letter or response to a prompt.] When the system asks “Join what conference,” type **food** at the prompt and press <ENTER> to join the food conference.
- e. The FOOD subboard welcome message will appear, followed by announcements and a list of subboard bulletins. (At this point, you may select **n** to continue without reading bulletins or type the number of the bulletin you wish to read.)
- f. Next you will see the RBBS-PC Main Menu of the FOOD subboard. Select **b** to see the Food and Nutrition Bulletin List.
- g. Type the number of the bulletin you wish to read.
- h. To exit type **g** for [G]oodbye at the RBBS-PC Main Menu, or, if you wish to download a file, proceed with the following directions.

Downloading a file:

- a. Select **f** for [F]iles from the RBBS-PC Main Menu or the FOOD subboard Main Menu. The RBBS-PC File Menu will appear.
- b. To see a list of all file categories in ALF type **l** for [L]ist files.
- c. Type **food** at the “what directory” prompt to see a list of files which are available from FNIC. Write down any file names of interest.
- d. Select **d** for [D]ownload file at the RBBS-PC File Menu. Then, when prompted, type the name of the file you wish to download.
- e. Next you will be asked for a file transfer protocol. Select a protocol that your communications software package supports.

- f. When the system prompts you that it is ready to send the file, instruct your communications software to receive the file.

Note: File names with the extension .ZIP or .EXE have been compressed to save space. Read bulletin number 4 from the NAL Bulletin Menu for information about compressed files. Decompression software may be downloaded from ALF to restore files to their original size.

To exit, select **g** for [G]oodbye. You also may type **q**, then type **c**, to quit the conference and return to the MAIN section to explore other ALF options.

For more information about food and nutrition items on ALF, contact a FNIC nutritionist at:

Food and Nutrition Information Center
USDA, National Agricultural Library
10301 Baltimore Blvd., Rm. 304
Beltsville, MD 20705-2351

Voice: (301) 504-5719
FAX: (301) 504-6409
Internet: fnic@nalusda.gov

For further information about ALF call:

Karl Schneider (301) 504-5113; Internet: kschneid@nalusda.gov

Becky Thompson (301) 504-6908; Internet: bthompso@nalusda.gov.

Consumer Information Center Bulletin Board System (CIC BBS)

The Consumer Information Center Bulletin Board System (CIC BBS) is a service of the General Services Administration in Washington, DC. It is designed for the media and electronic media as a means of promoting consumer information. The BBS contains current news releases, publication lists, calendars, and more.

Food and nutrition information may be located by conducting keyword searches of available files. Subjects include nutrition tips, meal planning, USDA's Food Guide Pyramid, recipes, nutrition-related publications, and more. All items accessed on the BBS may be read online or downloaded.

Costs: There is no charge for using the CIC BBS. Direct dial costs or telecommunications access charges may apply.

Access: To access CIC BBS you need a computer, modem, and communications software. You can connect to CIC BBS directly by modem, by modem via FedWorld, or via Internet through FedWorld. (See FedWorld instructions on page 51 for more information.)

Modem:

- a. To access CIC BBS, dial (202) 208-7679. Communications software settings are: 8 data bits, 1 stop bit, no parity, full duplex, with ANSI/BBS terminal emulation. The BBS supports modem speeds up to 14,400 bps. [To access CIC BBS via modem through FedWorld, follow instructions on page 51 (Fedworld modem instructions).]
- b. When prompted, enter your first and last names.
- c. The system will prompt you to enter and verify a password of your choice.
- d. A welcome screen will scroll by and the CIC BBS will ask for some introductory information such as your location and how you learned about the system. Continue answering questions at the prompts and reading the messages or bulletins until you come to the Main Menu. To select an item, type the item number or letter and press <ENTER>.
- e. Type **b** to access the [B]ulletin Menu. Select "Food & Nutrition". A list of resources on this topic will display. Select one and press <ENTER>.

- f. Press <ENTER> to return to the Main Menu.
- g. To conduct a keyword search of the files on this system, type **f** to access the File Menu. Select [T]ext Search. The system will prompt you to enter a file area. Press <ENTER> to search all areas, or select [L]ist to see a list of available file areas. Type the number of the area of interest. The list of file areas will redisplay, with an * next to the area you specified. Repeat the process to mark additional areas. When finished choosing file areas to search, select [S]top. At the file area prompt, press <ENTER>.
- h. The system will prompt you to enter a keyword. Type the keyword and press <ENTER>. File names containing the keyword selected will display.
- i. Select [M]ark, then type the number of the file of interest. At this point, you may select [V]iew to read the file, [I]nfo for file size and contents, or [D]nlwd to download the file. For example, select [D]nlwd, then select [D]ownload again from the next menu. When prompted, instruct your communications software to transfer the file to your system.
- j. You may download as many files as you wish. During your session, [M]ark all desired files. When you logoff, the system will prompt you to download all the marked files.
- k. To logoff, select [G]oodbye from the Main Menu.

For further information contact:

Joshua Shleien
U.S. Consumer Information Center
24-Hour Bulletin Board System
General Services Administration
Washington, DC 20405

Voice: (202) 501-1794
FAX: (202) 501-4281

FDA Bulletin Board System (FDA BBS)

The FDA Bulletin Board System is available from the U.S. Food and Drug Administration's (FDA) Office of Public Affairs. It primarily provides information about medical and drug subjects for health professionals. The nutrition-related information is found throughout the bulletin board and is mostly about food labeling, food safety, and food regulations. Available information includes the *FDA Consumer* index and full text of selected articles, the FDA's *Federal Register* summaries, FDA news releases, FDA enforcement reports, answers to frequently asked questions, and a calendar of FDA meetings.

Costs: There is no charge for using the FDA BBS. Telecommunications access charges may apply.

Access: The FDA BBS can be accessed via the Internet; or by computer, modem, and communications software that is VT-100 or VT-102 compatible.

Modem:

- a. Dial the toll-free number: 1-800-222-0185 or, if you are local to the FDA BBS, dial (301) 594-6849 or (301) 594-6857. Communications software settings are: 7 data bits, 1 stop bit, and even parity. The BBS supports modem speeds up to 9600 bps.
- b. Select "FDA Bulletin Board Service" from the list.
- c. After you are connected type **bbs** to log in.
- d. You will be asked to enter your name and a password of your choice to become a registered user.
- e. The BBS will display a few messages. Type **topics** at the next prompt. Type **info all** to get more information about the content of each topic.
- f. Select desired topic by typing its name.
- g. At this point you can see document titles or read those of interest. Or, if you are looking for specific materials, do a keyword search. Type **search** and the system will prompt you to enter a keyword(s). Type a keyword and press <ENTER>. The system will display the number of occurrences. Type **scan** to list documents found. Type **read** and the document number (e.g., **read 12**) to review the document. Type **help** for a list of other available commands.
- h. To exit the FDA BBS type **quit**, then select "Logoff server".

Internet (telnet):

- a. Telnet to **fdabbs.fda.gov**.
- > Follow modem instructions at step c.

Internet (gopher):

- a. Gopher to **esusda.gov**.
- b. From the “Root gopher server: esusda.gov” menu, select “USDA and Other Federal Agency Information”.
- c. Select “U.S. Government Gophers and Telnet Connections”.
- d. Select “U.S. Government -- Telnet Sites”.
- e. Select “Food and Drug Administration <TEL>”
- > Follow modem instructions at step c.

NOTE: It is very helpful to select “manual” from the topics list. It is the user guide for the bulletin board and contains all information about topics, commands, and persons to contact if you need help.

For further details about the information on the FDA BBS contact:

Karen Malone or Penny Holland
FDA Press Office, HFI-20
Rockville, MD 20857
Voice: (301) 443-3285

For technical support, call: (301) 443-7318

FDA PRIME Connection (FDA PRogram Information Material Electronic Connection)

The FDA PRIME Connection is a computer-based information system available from the Center for Food Safety and Applied Nutrition of the Food and Drug Administration (FDA).

It provides technical information about regulatory issues and policies on retail food protection, milk safety, and seafood safety. For example, it contains the Milk Shippers List, Shellfish Shippers List, FDA Fish List, and regional milk seminar questions and answers.

Furthermore there is a chapter on technical references that contains information about foodborne pathogenic microorganisms and natural toxins, sanitizer, and FDA enforcement actions.

Costs: There is no charge for using the FDA PRIME Connection system.

Registration:

Preregistration is required to access FDA PRIME Connection. Request an application form from the address below.

Access: To access FDA PRIME Connection you need a computer, modem and communications software.

Depending on your location and the speed of your modem, there are different local numbers available to connect to the system. Otherwise, you can dial a toll-free number. You will get a list of phone numbers with your registration.

You will receive complete instructions on how to access FDA PRIME Connection, including your login code and password, after you register.

For a registration application and further information contact:

Food and Drug Administration
FDA PRIME Connection
200 C St., SW - HFS-625
Washington, DC 20204-0001
Voice: (202) 205-8140
FAX: (202) 205-5560

--OR--

Charles Otto, Systems Manager
Internet: CSO@FDACF.SSW.DHHS.Gov

Nutrient Data Bank Bulletin Board (NDB BB)

The Nutrient Data Bank Bulletin Board (NDB BB) is available from the Agricultural Research Service (ARS) of the U.S. Department of Agriculture. It focuses on the nutrient composition of foods. It contains current publications, Nutrient Data Bank Conference announcements, data sets of the nutrient composition of foods, and information about ARS. For example, you will find the USDA Nutrient Data Base for Standard Reference; nutrient data used in USDA's Nationwide Food Consumption Survey; ARS' consumer level software program—Dietary Analysis Program; and the Food Guide Pyramid Users Database Listing.

The NDB BB allows you to read bulletins or download files. You also can send messages to the bulletin board systems operator; however, you can't send messages to other users.

Costs: There is no charge for using the NDB BB. Direct dial costs or telecommunications access charges may apply.

Registration:

No preregistration is required to access the NDB BB. You will become a registered user the first time you log in.

Access: To access the Nutrient Data Bank Bulletin Board you need a computer, modem and communications software.

You can connect to NDB BB directly by modem, by modem via FedWorld, or via Internet through FedWorld. (See FedWorld instructions on page 51 for more information.)

Modem:

- a. Dial (301) 436-5078. Communications software settings are: 8 data bits, 1 stop bit, no parity, full duplex. The BBS supports modem speeds up to 14,400 bps. [To access NDB BB via modem through FedWorld, follow instructions on page 51 (Fedworld modem instructions).]
- b. After the connection is established, enter your name, city and state when prompted.
- c. After the welcome message displays, you will be asked if you want to register. Type **r** to register, enter a password of your choice, then re-enter the password for verification.
- d. Select the type of display and the default protocols that are compatible with your system.
- e. Enter your company name, address, and phone number when prompted.

Selected Electronic Sources of Food and Nutrition Information

- f. The Nutrient Data Bank Bulletin Board Menu and Welcome Screen will appear, followed by a list of bulletins. Enter the number of the bulletin of your choice or press <ENTER> to continue.
- g. You also may type **b** at the RBBS-PC Main Menu to read the bulletins. If you want to “capture” the file to your computer, instruct your communications software to do so before selecting the bulletin number.
- h. Type **g** for [G]oodbye at the RBBS-PC Main Menu to exit, or if you wish to download a file proceed with the following directions.

Downloading a file:

- a. Select **f** for [F]iles from the RBBS-PC Main Menu.
- b. Press **l** to [L]ist files from the RBBS-PC File Menu. Write down the file name.
- c. Type **d** for [D]ownload file at the RBBS-PC File Menu. At the prompt “Download what file(s)” type the file name.
- d. Next the system will ask you for a file transfer protocol. Select desired protocol, if no default protocol was chosen at the registration.
- e. When the system prompts that it is ready to send the file, instruct your communications software to receive the file.
- f. To return to the Main Menu, type **q** to quit, then select “to [M]ain”.
- g. To leave the system, select [G]oodbye.

Internet (telnet):

NOTE: Data on the NDB BB, when accessed through Internet, appears in a different format than the same data on the NDB BB when accessed by modem.

- a. Telnet to **info.umd.edu**.
- b. After the “InforM welcome message,” enter your terminal type and press <ENTER>.
- c. Select “Educational Resources/”.
- d. Select “Academic Resources By Topic/”.

- e. Select "Agriculture and Environment Resources/".
- f. Select "United States Department of Agriculture (USDA)/".
- g. Select "USDA Food Composition Data/".
- h. You now may select either "Bulletins/" or "Data/". Read the bulletins to find out about the data sets listed under Data.
- i. If you select "Bulletins/" you will see a list of bulletins you can read. Select one and press <ENTER> to read it. (Or press = for a screen of download information and the option of mailing the file.)
- j. If you select "Data/" you will see a list of data set files. These contain raw data that can be downloaded to your system or mailed to your e-mail address. Type **q** and a menu at the bottom of the screen will give you these options.
- k. Choose "FNIC" to read about Food and Nutrition Information Center publications. Choose "Index" to see a key to the data set codes.
- l. To exit, type **q** for Quit.

Internet (gopher):

- a. Gopher to **info.umd.edu**.

—> Follow Internet (telnet) instructions at step d.

For further information about the NDB Bulletin Board, contact:

David B. Haytowitz
Human Nutrition Information Service
6505 Belcrest Road, Rm. 315
Hyattsville, MD 20782

Voice: (301) 436-8491
Internet: info-12@info.umd.edu

NIH Information Center Bulletin Board System

The NIH Information Center Bulletin Board System (NIH BBS) is a service of the National Institutes of Health (NIH), Office of Communications. NIH is part of the Department of Health and Human Services. The Bulletin Board was established to provide students, medical professionals, reporters, science writers and members of the public with information about the NIH and the medical research it supports.

The NIH BBS is menu-driven; type the option letter or number to activate it. Files are divided into twelve categories. These include an NIH Information Index, NIH publications, press releases, news and feature articles, calendars, graphics, clinic alerts, and NIH articles that were published in the *Journal of the American Medical Association* (JAMA).

Costs: There is no charge for using the NIH Information Center Bulletin Board System.

Access: To access the NIH BBS you need a computer, modem and communications software.

Modem:

- a. Dial the toll-free number: 1-800-NIH-BBS1 or, if you are local to the NIH BBS, dial (301) 480-5144. Communications software settings are: 8 data bits, 1 stop bit, no parity, full duplex. The BBS supports modem speeds up to 14,400 bps.
- b. Once you are connected, enter your name and a password of your choice at the prompts. The first time you log in, you will be asked to answer a short questionnaire and to enter information about your computer and download protocol preference.
- c. The BBS will display a list of NIH Information Centers. Press "C" at the prompts until you reach the Main Menu.
- d. Nutrition-related information on such topics as diet and disease prevention, food additives, or vitamins can be found mainly in the files section. Files may be searched by keyword, title, or description. For example, to search for nutrition-related files by keyword:
 1. Type **f** for Files Menu and press **<ENTER>**.
 2. Type **s** to Search For Files and press **<ENTER>**.

3. Enter your search criteria and press <ENTER>. For example, to search for files containing the word "diet" as a keyword: Select [K]eyword at the Search command prompt. Press <ENTER>, then type **diet** at the "Keyword?" prompt. Select [S]tart search, then select the file area to be searched (or press **l** to list areas or press <ENTER> to search all areas).
 4. The BBS will list all files that match your criteria. Type **i** to get [I]nfo about the file size and contents, or type **v** to [V]iew a compressed file. [M]ark one or more files for download by typing **m** then entering the file number. When you are ready to download the file(s), select [D]wnld, then select [D]ownload again. When the system prompts you that the file(s) is ready to send, instruct your communications software to transfer the file.
- e. Type **s** and press <ENTER>, then type **q** to return to the Main Menu. Other options available on the NIH BBS include Bulletins on NIH, grants, contacts, types of available files, etc.; the NIH newsletter; and messaging.
 - f. To exit the NIH BBS, return to the Main Menu and select [G]oodbye, then type **y** to logoff.

For further information on the NIH BBS contact:

Dennis Rodrigues
NIH Historical Office
Building 31, Rm. 2B09
National Institutes of Health
Bethesda, MD 20892

Voice: (301) 496-6610
FAX: (301) 402-1434

If you have general questions about NIH, call the Office of Communications:

Voice: (301) 496-4461
FAX: (301) 496-0017

Internet

The Internet is a giant collection of worldwide computer networks, consisting of millions of individual computers and users. These users make up small networks, which link together to form regional networks, which then are joined by a “backbone” network to form national and international networks. This section includes information about the Internet's origin; Internet connection; Internet services; and navigation and search tools. Covered in more detail are:

- Almanacs
- Electronic Mailing Lists
- Gophers

Origin of the Internet

What is now the Internet was once several smaller networks, each developed for different types of users. ARPANET was a network for the United States military, defense contractors, and universities doing defense research. UUCP and USENET served the university community and some commercial organizations. CSNET and BITNET provided networks for computer scientists and researchers.

Starting in 1986, the National Science Foundation Network (NSFNET) absorbed several of the smaller, earlier networks and connected to the others, as well as to similar networks springing up in other countries. Eventually, the NSFNET became the backbone (as well as the major funding source) of this international network called the Internet. USENET, BITNET, and other networks still exist outside the Internet but have connections with it. Commercial networks (such as America Online and Prodigy) also have connections to the Internet.

Connecting to the Internet

Contributors to the Internet include government, academic, and commercial and nonprofit organizations from all over the world. Most users access the Internet by connecting to a “host” computer that belongs to one of these participants. A multitude of commercial vendors also provides access to the Internet (see Selected Commercial Service Providers, page 69). Typically, these vendors offer a variety of Internet services so that subscribers may choose the ones that suit their needs and their equipment.

Internet: Basic Services

The Internet has three main capabilities: **electronic mail** (also known as messaging or e-mail); file transfer protocol (**FTP**); and remote login (**telnet**). E-mail allows Internet users to send messages to each other, join computer conferences, and request files. **Telnet** allows a user to open a connection to another Internet computer and use its services interactively. **FTP** enables an Internet user to transfer files between two Internet-connected computers. The food and nutrition sources selected for this publication use telnet and e-mail.

Not every Internet user has access to all these capabilities; in fact, some users have only e-mail. Your systems administrator or service provider can tell you what types of Internet capabilities you have and help you use them.

Electronic mail

All computers (or hosts) on the Internet are named in a hierarchical manner. The various parts of an Internet address are separated by periods. Internet addresses have the following format: **userid@host.institution.domain**. For example, jsmith@umail.umd.edu.

The first step in using Internet, once you connect, is to know your own e-mail address and those of the computer sites or users you wish to contact. Electronic mail is the basis for using almanac and electronic mailing lists, described in more detail in the following sections.

Telnet

Telnet is the name of the software and the protocol that allows a computer user at one site to work on a computer at another site. After connecting with the remote computer, a series of menus helps locate the information you need. Telnet provides a link to many of the databases, gophers, and electronic bulletin boards listed in this publication. See the individual listings for telnet addresses. Users without telnet may use an alternate method to reach these systems.

Internet: Navigation and Search Tools

The enormity of the Internet has led to the development of many tools to help users find the information they need. Some of these, such as **almanac** and **gopher**, organize information on the Internet so that it is easier to locate. Refer to the sections on almanac and gopher for more information.

Other tools search for information across the Internet. A few of the most common search tools, **Archie**, **Veronica**, **WAIS**, and **WWW**, are listed below. Refer to the Electronic Sources Resource List on page 63 for guides that offer more extensive explanations, or contact your systems administrator or service provider for specific instructions for access and use.

Archie searches for keywords in program names or file names. There are several ways to access archie. Like telnet, it may operate directly from your system. You also can telnet to a public archie site, or use e-mail to request an archie search. (Note: For a list of public archie sites, send an e-mail message to **archie@archie.rutgers.edu** containing only the word **servers** in the first line of the message.)

Veronica (Very Easy Rodent-Oriented Net-wide Index to Computerized Archives) is usually found as a gopher menu choice, since it only searches gopher files. (See the section on gopher that follows.) Veronica allows two types of keyword searches: all titles in gophers or directory titles only.

WAIS (Wide Area Information Server) searches for keywords in databases located on participating computers all over the world. WAIS, like archie, may be available on your computer host or it may be accessed by telnetting to a public WAIS site. WAIS also may be a gopher menu option. (Note: Examples of public WAIS sites and their login i.d.'s are: **kudzu.cnidr.org**, i.d.: wais; **nnsf.net**, i.d.: wais; **sussite.unc.edu**, i.d.: swais; and **swais.sciw.uci.edu**, i.d.: swais.)

WWW (World Wide Webb) links related documents; selecting a highlighted keyword in one document will take you to another document related to that word. You can move through many documents by continuously selecting highlighted words. Software developed for use with WWW includes **cello**, **lynx**, and **mosaic**. You can use telnet to reach a WWW site (e.g., **info.cern.ch**), or it may be available on your host computer's system.

Internet: Almanacs

Almanac, a network information discovery and retrieval tool, processes requests for files through electronic mail. Almanacs were developed by the Cooperative Extension System. Examples of almanac sites are listed below. Nutrition information is available from each site.

<u>Location</u>	<u>Internet Address</u>
Americans Communicating	
Electronically	almanac@ace.esusda.gov
Auburn University	almanac@acenet.auburn.edu
Cornell University	almanac@cce.cornell.edu
Extension Service-USDA	almanac@esusda.gov
National Ag Library/ES-USDA . . .	almanac@cyfer.esusda.gov
North Carolina State University . .	almanac@ces.ncsu.edu
Oregon State University	almanac@oes.orst.edu
Purdue University	almanac@ecn.purdue.edu
University of California	almanac@ucdavis.edu
University of Missouri	almanac@ext.missouri.edu
University of Wisconsin	almanac@wisplan.uwex.edu
Virginia Tech (under development)	almanac@joe.ext.vt.edu

HOW TO: Find What's in Almanac:

1. Send an e-mail message to any almanac. Each site maintains a subject catalog for that location.
2. In the body of your message type the command: **send catalog**. (Don't include any additional text in your message.)
3. Almanac will process the message and return the catalog to your electronic mailbox.
4. Request a new almanac catalog periodically to review new additions or changes to previous entries.

HOW TO: Get the Almanac Users Guide:

1. Send an e-mail message to any almanac. Each site maintains a user's guide for that location.
2. In the body of your message type the command: **send guide**
3. The guide will be sent to your electronic mailbox.

Example:

Nutrition-related materials that may be obtained from an almanac server include *Poverty & Hunger Papers* and information on food labeling regulations.

- *Poverty & Hunger Papers* contain five papers relating to poverty, health, food security, hunger, and undernutrition. To find out what information is available, send an e-mail message to **almanac@esusda.gov** with the command: **send pov-hunger catalog**. To receive a document, send an e-mail message to **almanac@esusda.gov** with the command: **send pov-hunger** followed by the document name. For more information, send an e-mail message to Nancy Leidenfrost at **nleidenf@esusda.gov**.
- Public information about food labeling regulations and the Nutrition Labeling and Education Act of 1990 is available via almanac. The Food and Drug Administration and the Food Safety and Inspection Service provide the information. To receive a list of available documents, send an e-mail message to **almanac@esusda.gov** with the command: **send fda catalog**. To retrieve a document, send an e-mail message to **almanac@esusda.gov** containing the command **send fda** followed by the document name.

Internet: Electronic Mailing Lists

There are a variety of ways to communicate with a large number of Internet users through e-mail. These include almanac mailing groups, listservs, forums, discussion groups, and others. Some are fully automated; others are maintained and administered by an individual(s). Some electronic mailing lists are two-way forums that allow group members to discuss a topic, or just observe the dialogue. Others are one-way services that send newsletters, reports, and other publications to subscribers.

Example: How to subscribe to an almanac mailing group

1. Send an e-mail message to any almanac. Each site maintains a catalog of mailing lists for that location.
2. In the body of your message type the command: **send mail-catalog**
3. To subscribe to a group, send an e-mail message to the almanac **site** where the mailing group you wish to join is located. For example, to subscribe to ES-USDA's "CITExtension" newsletter mailing group, send a message to **almanac@esusda.gov**. In the body of the message, type the command: **subscribe groupname** (e.g., subscribe usda.cite).
4. You will receive a confirmation message. Save this message since it includes commands specific to this list.

Example: How to participate in a listserv discussion group

1. Send an e-mail message to **listserv@** followed by the address. For example, to subscribe to a list located at the University of Maryland, send a message to **listserv@umdd.umd.edu**.
2. In the body of your message type the command: **subscribe** (or **sub**) followed by the listname and your first and last name. For example, to subscribe to a list called Dairy-L, type **sub Dairy-L Joe Smith**.
3. You will receive a confirmation message. Save this message since it includes commands specific to this list.

➤ Selected Electronic Sources of Food and Nutrition Information

The following are examples of electronic mailing lists related to food and nutrition. An exhaustive list is not possible because of the changeable nature of the Internet.

- **AGRIS-L** is a bulletin service monitored by the Food and Agriculture Organization Library.

Subscription command: SUB AGRIS-L Firstname Lastname
Address: listserv%irmfao01.bitnet@vm.cnuce.cnr.it
Bitnet address: listserv@irmfao01.bitnet

- **DIET** is a list for the discussion and support of weight loss. Topics include nutrition information as well as lifestyle changes and issues related to image and emotional problems.

Subscription command: SUB DIET Firstname Lastname
Address: listserv@ubvm.cc.buffalo.edu
Bitnet address: listserv@ubvm.bitnet

- **EAT-L** supports the exchange of recipes and foodlore.

Subscription command: SUB EAT-L Firstname Lastname
Address: listserv@vtvm1.cc.vt.edu
Bitnet address: listserv@vtvm1.bitnet

- **EAT-LF** focuses on low fat/very low fat diets and is not restricted to vegetarian foods.

Subscription command: SUBSCRIBE EAT-LF Firstname Lastname
Address: listproc@apollo.it.luc.edu

- **FAO-DOC** provides information on publications available from the Food and Agriculture Organization.

Subscription command: SUB FAO-DOC Firstname Lastname
Bitnet address: listserv@irmfao01.bitnet

- **FAO-INFO** is a list to provide information about the Food and Agriculture Organization.

Subscription command: SUB FAO-INFO Firstname Lastname
Bitnet address: listserv@irmfao01.bitnet

- **FatFree** is a mailing list for the discussion of extremely lowfat vegetarianism (less than 15% of calories in the diet are from fat).

Subscription command (put in the **subject line**): ADD
Address: fatfree-request@hustle.rahul.net

- **FIT-L** is a discussion list for exchanging ideas and information about diet, exercise, and wellness.

Subscription command: SUB FIT-L Firstname Lastname
Address: listserv@etsuadmn.etsu.edu
Bitnet address: listserv@etsuadmn.bitnet

- **Food Market News** is a mailing group that sends a monthly newsletter on the trends and prices of food commodities.

Subscription command: subscribe fkmktnews-mg.
Address: almanac@oes.orst.edu

- **Food-comp**, a project of the United Nations University, is a list on food composition data.

Subscription command: SUBSCRIBE FOOD-COMP Firstname Lastname
Address: food-comp-request@infoods.unu.edu

- **Food-For-Thought** is a list open to anyone who has an academic (“as well as gastronomic”) interest in food. It is intended to act as a forum for discussions on all aspects of food and eating across different disciplines and perspectives.

Subscription command: SUBSCRIBE Food-For-Thought Firstname Lastname
Address: mailbase@mailbase.ac.uk

- **FOODLINK** is a listserv for the discussion of issues related to food safety.

Subscription command: SUBSCRIBE FOODLINK Firstname Lastname
Address: listserv@wsuvm1.csc.wsu.edu
Bitnet address: listserv@wsuvm1.bitnet

- **FOODWINE** focuses on the academic study of food and accompaniments.

Subscription command: SUBSCRIBE FOODWINE Firstname Lastname
Address: listserv@cmuvm.csv.cmich.edu
Bitnet address: listserv@cmuvm.bitnet

Selected Electronic Sources of Food and Nutrition Information

- **IFT FSC** (Institute of Food Technologists Food Science Communicators) is a listserv that focuses on upcoming news and media events that may require a media contact or response as well as to address other FSC interests such as food safety and nutrition.

Subscription command: SUBSCRIBE IFT Firstname Lastname
Address: listserver@lists.acs.ohio-state.edu

- **J-FOOD-L**, a list created at Kinki University in Japan, focuses on Japanese food and culture.

Subscription command: SUBSCRIBE J-FOOD-L Firstname Lastname
Address: listserv%jpnknu01.bitnet@cunyvm.cuny.edu
Bitnet address: listserv@jpnknu01.bitnet

- **NUTEPI** is a forum for discussing issues related to nutritional epidemiology.

Subscription command: SUBSCR NUTEPI Firstname Lastname
Address: listserv%db0tui11.bitnet@vm.gmd.de
Bitnet address: listserv@db0tui11.bitnet.

- **Veg-cook** is a mailing list dedicated to vegan, lacto, ovo, and lacto-ovo vegetarian cooking, including the exchange of recipes.

Subscription command: SUBSCRIBE Veg-cook Firstname Lastname
Address: listserv@NETCOM.COM

- **VEGGIE** covers any aspect of vegetarianism, vegetarian lifestyles, or anything relevant to vegetarians.

Subscription command: SUB VEGGIE Firstname Lastname
Address: veggie-request@maths.bath.ac.uk

- **VEGLIFE** [Vegetarian Lifestyle Discussion List (formerly GRANOLA)] is a forum for discussing issues related to vegetarianism. Topics include: recipe exchanges, nutrition information, types of vegetarianism, written resources, vegetarian meal plans, diet and human health, and other vegetarianism issues.

Subscription command: SUB VEGLIFE firstname lastname
Address: listserv@vtvm1.cc.vt.edu
Bitnet Address: listserv@vtvm1.bitnet

Internet: Gophers

A gopher is a menu system that helps users find information on the Internet. Originally developed at the University of Minnesota, gopher allows the user to tunnel through or navigate the Internet simply by moving through menus and selecting options of interest. It provides links to computers worldwide, allowing access to databases, documents, electronic books and journals, government reports and information, public domain software, and more. Many electronic sources included in this publication may be accessed through gopher; see the individual listings for directions.

Gopher consists of several hundred gopher servers and thousands of gopher clients. Gopher servers are computers containing indices; gopher clients are computers with software designed to access these indices. The way in which you access gopher depends upon your operating system environment. Your host computer may have a gopher client; ask your systems administrator or service provider. If this is the case, then you can go directly to any gopher if you know the address. If you don't know the address, you can gopher to one you know, and then browse menus to find the one you want.

If you don't have access to a gopher client, you can telnet to a public one. Below are some selected gopher sites. Use telnet to reach a site, then login as **gopher**.

Some Public Telnet Gopher Sites

gopher.uiuc.edu
gopher.uwp.edu

consultant.micro.umn.edu
panda.uiowa.edu

Gopher Tips

With gopher, many paths can lead to the same place. There isn't a right way or wrong way to find the files you're after. Most gophers have an option that leads to other gophers, so if you don't find what you want in the one you're in, you can search some others. Look for an option that says "Other Gopher and Information Servers", or something similar. Menu options can vary widely from one gopher to another; there aren't standard options or wording.

Once you have accessed gopher, highlight or point to items of interest on the menu and press **<ENTER>** to retrieve the information or move down to another menu. You can tell which options lead to other menus by the "/" after them. The options with "<?>" after them take you to a simple database that can perform keyword searches.

Food and nutrition information is available on many different gophers. Examples of these follow. It is not possible to compile an exhaustive list because new gopher servers are added every day. One way to explore gopher is simply to browse menus and see what looks interesting! Another is to perform a veronica search (see page 35).

Gophers: Extension Service, U.S. Department of Agriculture

The Extension Service, U.S. Department of Agriculture Gopher Server provides access to information from the Extension Service (ES), USDA and other Science and Technology agencies within the federal government, including the Environmental Protection Agency and the Food and Drug Administration. It also includes other information related to the mission of the Cooperative Extension System (CES).

This gopher provides access to fact sheets on food safety and quality; bibliographies and fact sheets related to poverty, food security, hunger, and undernutrition; bulletins, publication listings, announcements and access to text files on USDA Food Composition Data; information on pesticides and food safety; and information about food labeling regulations and the Nutrition Labeling and Education Act (NLEA) of 1990.

Costs: There is no charge to access information. Telecommunications access charges may apply.

Access: To use the gopher, you need a computer and access to the Internet.

Internet (gopher):

- a. Gopher to **esusda.gov**.
- b. To view a document or access another menu, highlight the topic of your choice from the menu and press <**ENTER**>. [Note: Some of the examples on the following pages give instructions that use the ES USDA gopher server as a starting point.]
- c. You also may select **p** to print, **s** to save the file to your system, or **m** to mail the document to an e-mail address. Or, instruct your communications software to capture the document as you scroll through it, or you can use the <**PRINT SCREEN**> key.

Gophers: Food and Nutrition Information Center Gopher

The Food and Nutrition Information Center (FNIC) at the National Agricultural Library maintains a gopher on food and nutrition topics such as food service management, food and nutrition software, foodborne illness, and food labeling education.

The gopher also contains a description of FNIC and its services; and it provides access to the FNIC publication list, the full text of publications, and information on obtaining "copies on floppies" (FNIC publications available on a diskette).

Files containing the complete listings of items in three special databases maintained at FNIC also are available: **Database of Nutrition Education Materials Developed by WIC, Food Guide Pyramid Database, and National Exchange for Food Labeling Education Database.**

Costs: There is no charge to use the gopher. Telecommunications access charges may apply.

Access: To use the gopher, you need a computer and access to the Internet.

Internet (gopher):

- a. Gopher to **esusda.gov**.
- b. From the "Root gopher server: esusda.gov" menu, select "Other Gopher Information Servers/".
- c. Select "North America/".
- d. Select "USA/".
- e. Select "Maryland/".
- f. Select "Food and Nutrition Information Center, USDA/".
- g. Highlight the topic of your choice from the menu and press **<ENTER>**.
- h. You also may select **p** to print, **s** to save the file to your system, or **m** to mail the document to an e-mail address. Or, instruct your communications software to capture the document as you scroll through it, or you can use the **<PRINT SCREEN>** key.

For more information contact:

Nutritionist, Food and Nutrition Information Center
USDA, National Agricultural Library
10301 Baltimore Blvd., Rm. 304
Beltsville, MD 20705-2351

Voice: (301) 504-5714
FAX: (301) 504-6409
Internet: fnic@nalusda.gov

Gophers: Illinois Cooperative Extension Service

The Illinois Cooperative Extension Service gopher provides access to documents, fact sheets, newsletters, and articles on food preservation, food safety, and other food- and nutrition-related topics. Specific topics covered include home canning and freezing, foodborne illnesses, buying and cooking meats, pesticides in food, nutrition and the elderly, dieting, and nutrition and menopause.

A search option is available to locate and list messages or bulletins containing a specific keyword(s).

Costs: There is no charge to use the gopher. Telecommunications access charges may apply.

Access: To use the gopher, you need a computer and access to the Internet.

Internet (gopher):

- a. Gopher to **cesgopher.ag.uiuc.edu**.
- b. From the menu, select "Food-and-Nutrition/".
- c. You now may choose either "Food-Preservation/", "Food-Safety/", or "Nutrition". Then press **<ENTER>**.
- d. To view a document, highlight the topic of your choice from the menu and press **<ENTER>**.
- e. You also may select **p** to print, **s** to save the file to your system, or **m** to mail the document to an e-mail address. Or, instruct your communications software to capture the document as you scroll through it, or you can use the **<PRINT SCREEN>** key.

Keyword Search Procedure:

=====

A keyword search option also is available. From step b. above, select "***Search Extension Information**<?>". At the "Words to search for" prompt, type a word or phrase and press **<ENTER>**. Documents that include your keyword will be listed. Select a document from the list and press **<ENTER>** to view the document.

Gophers: National Institutes of Health

The gopher at the National Institutes of Health (NIH) provides Internet access to information about NIH health and clinical issues, NIH-funded grants and research projects, and a variety of research resources in support of NIH intramural scientists. Information available includes publications for professionals and consumers, the CancerNet Database, conference and workshop calendars, press releases, and more.

Costs: There is no charge to use the gopher. Telecommunications access charges may apply.

Access: To use the gopher, you need a computer and access to the Internet.

Internet (gopher):

- a. Gopher to **es USDA.gov**.
- b. From the "Root gopher server: es USDA.gov" menu, select "USDA and Other Federal Agency Information/".
- c. Select "U.S. Government Gophers and Telnet Connections/".
- d. Select "U.S. Government Gophers from UC Irvine gopher/".
- e. Select "National Institutes of Health (NIH)/".
- f. Food- and nutrition-related information is located in several directories, including "Grants and Research Information/" and "Health and Clinical Information/".

For example:

To find publications of the National Cancer Institute (NCI): Select "Health and Clinical Information/". From the menu it retrieves, make the following selections: "CancerNet Information/"; "CancerNet News/"; then "NCI Publications Information/".

- g. You also may select **p** to print, **s** to save the file to your system, or **m** to mail the document to an e-mail address. Or, instruct your communications software to capture the document as you scroll through it, or you can use the **<PRINT SCREEN>** key.

Keyword Search Procedure:

=====

A keyword search option also is available. From step f. above, select "Search Menus at this Gopher Site by Keyword<?>". Type a word or phrase and press **<ENTER>**. Documents that include your keyword will be listed. Select a document from the list and press **<ENTER>** to view the document.

Gophers: Newsletters

Keyword searches may be performed to locate selected newsletter and newspaper articles which contain nutrition information. Articles may be read, downloaded, or sent to your e-mail address from this site.

Costs: There is no charge to use the gopher. Telecommunications access charges may apply.

Access: To use the gopher, you need a computer and access to the Internet.

Internet (gopher):

- a. Gopher to **esusda.gov**.
- b. From the "Root gopher server: esusda.gov" menu, select "Other Gopher Information Servers".
- c. Select "All the Gopher Servers in the World".
- d. Select "University of Minnesota/" and from the menu it retrieves, select "News". [Note: Other gopher servers also may have a "news" or "newsletter" option.]
- e. Select desired newsletter or newspaper, then select the search option if available. Some publications do not have a search option; instead **all** articles available are listed.

For example:

1. Select "Cornell Chronicle (Weekly)".
 2. Select "Search the Cornell Chronicle".
 3. Enter a keyword(s) and press <ENTER>. A list of articles appears in which the keyword appears within the body of the article.
 4. Select the article of interest and press <ENTER> to display the file.
- f. Once you have selected an article, you may: 1) select <m> and enter your e-mail address to have the article sent to you; or 2) select <s> to save the article to a file; or 3) select <p> to print the selected article.

Gophers: University of Minnesota

A subsection of the University of Minnesota gopher (**gopher.tc.umn.edu**) contains thousands of recipes. Recipes may be read, downloaded, or sent to your e-mail address from this site.

Costs: There is no charge to use the gopher. Telecommunications access charges may apply.

Access: To use the gopher, you need a computer and access to the Internet.

Internet (gopher):

- a. Gopher to **esusda.gov**. [Or, gopher to **gopher.tc.umn.edu** and continue with step g. below]
- b. From the "Root gopher server: esusda.gov" menu, select "Other Gopher Information Servers".
- c. Select "North America".
- d. Select "USA".
- e. Select "Minnesota".
- f. Select "University of Minnesota".
- g. Select "Fun & Games".
- h. Select "Recipes".
- i. Select the category of the item you are looking for (for example, "Breads").
- j. A list of recipes in the category selected will display. Select the item you wish to see.
- k. You also may select **p** to print, **s** to save the file to your system, or **m** to mail the document to an e-mail address. Or, instruct your communications software to capture the document as you scroll through it, or you can use the **<PRINT SCREEN>** key.

Keyword Search Procedure:

=====

To search for keywords in a recipe, select "Search Recipes" at the Recipes Menu. Type a keyword and press **<ENTER>**. A list of files containing this keyword will display. Select the number of the file you wish to see. Continue with step **k.** above.

Other Access Points

Cornell Extension NETWORK (CENET)

The Cornell Extension NETWORK (CENET) is produced by the Extension Electronic Technology Group of the Cornell University Cooperative Extension. CENET is a link to a series of bulletin boards that provide access to press releases, print and audiovisual resources, and messages containing food- and nutrition-related information. Topics covered include diet, the Food Guide Pyramid, food labeling, food safety, and school meal programs. Users also may send nutrition questions via e-mail.

A full-text keyword search option will find and list messages or bulletins containing the keyword.

Costs: There is no charge for using a public CENET “guest” account. Direct dial costs or telecommunications access charges may apply.

Access: CENET can be accessed via the Internet; or by computer, modem, and communications software that is VT-100 or VT-102 compatible.

Modem: To access food and nutrition information on CENET:

- a. Dial (607) 255-6196. Communications software settings are: 8 data bits, 1 stop bit, no parity, full duplex. Set terminal emulation to none, ASCII, or TTY. CENET supports modem speeds up to 14,000 bps.
- b. Select “Connect to empire.cce.cornell.edu (CENET machine)” from the menu and press <ENTER>.
- c. At the “login:” prompt, type **guest** and press <ENTER>. When the CENET welcome screen appears, press the <SPACE BAR> to continue. Enter your first and last names at the prompts, then verify your account information and press <ENTER>. The first time you access CENET, the system also will prompt you for your city and state, and your e-mail address (optional).
- d. Press the <SPACE BAR> until you reach the CENET Main Menu. To select a menu option: type the option number or the capital letters of the command at the “MAIN>” prompt. For example, type **food** and press <ENTER> to access the Food and Nutrition Menu. At the “FOOD>” prompt, select an option, then select the item you wish to view.
- e. Type **bye** to exit.

Internet (telnet):

- a. Telnet to **cce.cornell.edu** or to **empire.cce.cornell.edu**.
—> Follow modem instructions at step c.

Internet (gopher):

- a. Gopher to **cce.cornell.edu** or to **empire.cce.cornell.edu**.
- b. At the CENET's root gopher server menu, select "Food and Nutrition Information".
- c. From the next menu you may conduct keyword searches for specific information on nutrition or on food safety; or you may select bulletins or messages from lists of available information.

For more information on CENET contact:

Extension Electronic Technology Group
40 Warren Hall
Cornell University
Ithaca, NY 14853

Voice: (607) 255-8127
Internet: eetg@cce.cornell.edu

Fedworld

FedWorld is an information gateway. It provides a link to public government computer systems including bulletin boards and databases.

Modem Access:

- a. To access **FedWorld** dial (703) 321-8020. Communications software settings are: 8 data bits, 1 stop bit, no parity, with ANSI/BBS terminal emulation.
- b. Once you are in the **Fedworld** system, type **new** for new user and press <ENTER> twice. You will be asked to answer some questions about yourself and the type of computer you are using. Create a password when prompted.
- c. Read the announcements. Press <ENTER> after each to continue.
- d. After the announcements, you will see the "Fedworld - National Technical Information Service" main menu.
- e. Press "D" to select "Gateway System (Connection to Government Systems)" and press <ENTER>.
- f. To search for a specific government system, select "T" to "Search the List of Gateway Systems" and press <ENTER>
- g. Next type the name of a word in the title of the system you would like to find. For example, to search for **ALF**, the National Agricultural Library's electronic bulletin board system:
 1. Type **ALF** and press <ENTER>.
 2. The results of your search will display. In this case, the only system that contains the word ALF is the **ALF** (or **Agricultural Library Forum**) bulletin board.
 3. Remember the number assigned to **ALF**.
 4. Press "X" to exit the search function.

You also can try other words to bring up other food and nutrition related systems. For example, use "consumer" to find the General Services Administration's Consumer Information Center BBS (CIC BBS), or try "nutrient" to find the Agricultural Research

Service's Nutrient Data Bank Bulletin Board (NDB BB). Information on these two BBSs can be found on pages 23 and 28 of this publication, respectively.

- h. Choose "L" to list other government systems. Scroll through the alphabetical list of systems that displays. Remember the number assigned to the system that you would like to access.
- i. To access a system, select "D" to "Connect to a Government System." Next, enter the number assigned to the system that you wish to access. For example, type **2** for **ALF**. You will leave **Fedworld** and connect to the system you chose. Now you can explore this system, following the directions given to you by the system. [See page 20 for additional information on ALF.]
- k. When you exit the system, you will return to **Fedworld**. You will see "<Q>, nonstop, or <C> continue" at the bottom of your screen. Choose "<C>" to continue in **Fedworld**. Choose "<Q>" to quit.

Note: File transfers through fedworld must be done using Kermit transfer protocol.

Internet (telnet):

- a. Telnet to **fedworld.gov** or **192.239.92.201**.
(FTP site access via Internet is **ftp.fedworld.gov**.)
- > Follow modem instructions at step b.

Free-Nets

Free-Nets are publicly-supported computer systems that offer unregistered users the option to “visit” the system and “explore” to find out what topics are covered and what options (messaging, file transfer, etc.) are available. Unregistered users have a time limit (usually 30-60 minutes) for browsing the system. Some options may be restricted to registered users only. Free-Nets may be accessed via Internet; or by computer with a modem and communications software.

While exploring a system, you will find instructions on how to become a registered user and who to contact for additional information. Some Free-Nets offer free registration (except for the cost of the phone call) while others may charge a nominal registration fee.

There are many Free-Nets, some of which may include nutrition topics. Several of these are described on the following pages.

The National Public Telecomputing Network maintains an up-to-date list of Free-Nets. To receive the list, contact:

National Public Telecomputing Network
P.O. Box 1987
Cleveland, OH 44106

Voice: (216) 247-5800
FAX: (216) 247-3328
Internet: info@nptn.org

Additional information about and direct access to some Free-Nets is available by gopher. Gopher to **esusda.gov**. From the “root gopher server: esusda.gov” menu, select “Other Gopher Information Servers/”. From the menu it retrieves, select the following options: “North America/”; “USA/”; “Michigan/”; “Clearinghouse of Subject-oriented Internet Resource Guides (UMich)/”; “Helpful Information on Using the Internet/”; “Computer Networks and Internet Guides (Rice U)/”. Then select either “Civic Nets, Community Nets, Free-Nets, and ToasterNets/” or “Freenet Documents/ Other Freenet Gophers/”. From these last two directories, you are given the options to read information about available Free-Nets and to connect directly to the Free-Net of your choice.

Example: Heartland Free-Net

Instructions for reading recipes on the Heartland Free-Net appear below. This option is available to unregistered users who are exploring the Heartland Free-Net. Registered users may post messages asking other users for specific recipes.

Access: To access the Heartland Free-Net you need a computer, modem, and communications software.

You can connect to the Heartland Free-Net either through a modem or via Internet.

Modem:

- a. To access the Heartland Free-Net dial (309) 674-1100 or (309) 438-2300. Communications software settings are: 8 data bits, 1 stop bit, no parity, with ANSI/BBS terminal emulation.
- b. A welcome screen will display. Read the welcome message and user rules, pressing **<ENTER>** to advance to the next screen.
- c. When prompted, select option 2 to login as “a visitor”. You will be allotted 45 minutes to use all the features of the Free-Net. The system will give a brief message on the privileges of becoming a registered user, then give you the option to “Explore the Free-Net System”, “Apply for a Free-Net Account”, “Get Help”, or “Exit the System”.
- d. Select “Explore the Free-Net System”. You will see additional information about the system. Continue through the system (press **<SPACE BAR>** for more or “**q**” to quit or “**h**” for help) until you reach the “Heartland Free-Net Directory”.
- e. To access the recipes section select “Special Interest Groups Center”, then choose “Cooking-Share a recipe”.
- f. A list of messages containing requests for recipes, responses to these requests, and user-posted recipes will appear. Type the number of the message you would like to read. At this point you may use the following commands:
 - c Contribute a new message
 - n Read next unread message
 - s Read next unread message with same subject
 - h Help, list of additional commands
 - q Quit

Selected Electronic Sources of Food and Nutrition Information

- g. To search for recipes on a specific topic, press **q** to return to the menu. Press the slash (/) key and press **<ENTER>**. When prompted to "Enter pattern to search subjects for:" type a keyword and press **<ENTER>**. For example, type **pizza** and press **<ENTER>**. The system will list articles that contain this keyword. After reading a message, type **s** to read the next unread message on the same subject. The system will list available commands for replying to the message, sending an e-mail message to the author, deleting the message if you are the author, etc. You may return to the top of the recipe list and search other topics as often as you wish.
- h. Options are given to return to selected menus, or type **x** to exit the Heartland Free-Net.

Internet (telnet):

- a. Telnet to **heartland.bradley.edu**.
—> Follow modem instructions at step b.

Example: Ocean State Free-Net

The Ocean State Free-Net is operated by the Rhode Island Department of State Library Services. It includes general information on nutrition and AIDS; and nutrition and health.

Location: Providence, RI

Modem: (401) 831-4640. Communications software settings are: 8 data bits, 1 stop bit, no parity, with ANSI/BBS terminal emulation.

Internet (telnet): **osfn.rhilinet.gov**

Login password: **guest**

Example: Prairienet

Nutrition-related information on Prairienet includes recipes, newsletters, and coverage of such topics as diet; nutrition and the elderly; and nutrition and disease. A search option also is available.

Location: Champaign-Urbana, IL

Modem: (217) 255-9000. Communications software settings are: 8 data bits, 1 stop bit, no parity, with ANSI/BBS terminal emulation.

Internet (telnet): **prairienet.org**

Login password: **visitor**

PENpages

PENpages is a full-text information service for human nutrition, agricultural sciences, aging, family, community development, and consumer issues. It contains research-based fact sheets, reports, newsletters, and bibliographies. The information is provided by researchers and experts in all areas of Cooperative Extension from around the nation including the Pennsylvania State University, the U.S. Department of Agriculture, West Virginia State University, Colorado State University, Iowa State University, Ohio State University, the University of Georgia, and others.

Costs: PENpages is available on an international basis with no subscription fee charges. Direct dial costs or telecommunications access charges may apply.

Access: To access PENpages you need a computer, modem, and communications software that is VT-100 or VT-102 compatible.

You can access PENpages by modem or through Internet.

Modem:

- a. Dial (814) 863-4820. [If you are calling from within Pennsylvania, local phone numbers are available depending upon your city. Contact Computer Services on (814) 863-3449 or Internet: ppmenu@psupen.psu.edu for the local number for your area.] Communications software settings are: 8 data bits, 1 stop bit, no parity, full duplex. PENpages supports modem speeds up to 14,400 bps.
- b. At the login prompt, type the two-letter abbreviation for your state as the username. [If you are accessing PENpages from outside the U.S., use **world** as the username.] The welcome screen will scroll by.
- c. At the "PSUPEN System Menu", select the "PENpages" option to access the "PENpages Menu". At each menu you may make a selection, press **Control-b** to return to a previous menu, or press **Control-e** to exit.
- d. To read the "PENpages User Guide", select "General Information (Menu)", then at the "PENpages Main Menu", select "How to Use PENpages". You may then select "PENpages User Guide". The User Guide includes an introduction, and explanations of available commands. It also contains information on hardware/software selection; configuring your equipment; using the menus; using the Index-Keyword Search option; and "Usernames, Phone Numbers, & Internet Addresses".
- e. Press **Control-b** until you are back at the "PENpages Main Menu".

Selected Electronic Sources of Food and Nutrition Information

- f. To access documents through the menus, select options in the menus and their submenus until you locate a listing of available documents. Type the document number [to capture the document to a disk or a printer, turn your capture process on before you press <ENTER>] and press <ENTER>. The document will begin to scroll across your screen. Press **Control-s** to stop scrolling; press **Control-q** to resume scrolling. Repeat these instructions to read another document or press **Control-b** to return to previous menus.
- g. Only approximately 250 of the 9,000+ documents in PENpages may be accessed through the menus. Use the Index-Keyword Search option to access ALL documents. For instructions on how to do a keyword search, follow the instructions in step d. above to access the "PENpages User Guide" and select the option "Using the Index-Keyword Search".

Information on food and nutrition may be found in IFAN (see page 10), a database which is part of PENpages, as well as throughout the PENpages system. When the "Index-Keyword Search" option is activated in the main PENpages system, the entire PENpages system including IFAN will be searched. The IFAN section of this publication lists examples and keyword search procedures (see page 11).

Once you have located the document(s) of interest, follow the instructions in step f. above to view or capture the document.

- h. To exit PENpages, press **Control-e**.

Internet (telnet):

- a. Telnet to **psupen.psu.edu**.
—> Follow modem instructions at step b.

Internet (gopher):

- a. Gopher to **esusda.gov**.
- b. From the "Root gopher server: esusda.gov" menu, select "Other Gopher Information Servers/".
- c. Select "North America/".
- d. Select "USA/".
- e. Select "Pennsylvania/".

- f. Select "Pennsylvania State University".
 - g. Select "Information Servers at Penn State".
 - h. Select "Penn State PENpages".
 - i. Press <ENTER> to exit Internet and connect to PENpages.
- > Follow modem instructions at step b.

OR: Gopher to **psupen.psu.edu**. From the "Root gopher server: Psupen.psu.edu" menu, select "Search using keywords <?>". Type a keyword and press <ENTER>. Document titles that match your search request will be listed. Select one and press <ENTER> to retrieve it.

HINT: From the "Root gopher server: Psupen.psu.edu" menu, select "PENpages Gopher Server Information" to view the user's manual to this system.

For further details about PENpages contact:

Computer Services
Penn State College of Agricultural Sciences
405 Ag Admin Bldg, University Park, PA 16802

Voice: (814) 863-3449
Internet: ppmenu@psupen.psu.edu

For technical support contact:

Computer Services
Voice: (814) 865-1229
Internet: support@psupen.psu.edu

Selected Fee-based Systems

The ASFSA Connection

Produced by American School Food Service Association (ASFSA), the ASFSA Connection is an online network developed for school foodservice directors and supervisors. The system supports online communication, database searching, and special bulletin boards for industry news, product and service bids, and employment opportunities. Available material includes legislative/regulatory news; ASFSA news, membership information, and contacts; and meetings and events. Searchable databases provide access to the nutrition and education library and product information exchange.

Costs: The annual member subscription fee for the ASFSA Connection is \$269, with a one-time hook-up fee of \$79. Nonmember subscription fee is \$369. Your time on the system is charged to your long distance carrier.

Registration:

Preregistration is required to use the ASFSA Connection. Contact ASFSA to receive a start-up kit.

Access: To access the ASFSA Connection you need a computer and a modem. A start-up kit from ASFSA includes user ID and password, a user's manual, customized communications software, and a toll-free number for technical assistance.

For further information about the ASFSA Connection contact:

Patricia Mancesidor, Network Administrator
American School Food Service Association
1600 Duke Street, 7th Floor
Alexandria, VA 22314-3436

Voice: (703) 739-3900
FAX: (703) 739-3915

ChefNet

ChefNet is an electronic bulletin board system (BBS) for professional chefs and foodservice operators. ChefNet, produced by Indian Harvest Specialtfoods, Inc., is open to chefs, culinary students, front of the house employees, suppliers participating in the BBS's Electronic Food Show, caterers, consultants, and other foodservice operators. The BBS, established in March 1994, is still in the developmental stage. New features are being added as needed.

ChefNet is menu-driven and features forums, electronic mail, a file library, and information on food products and merchants. Other options include teleconferencing, messaging, and surveys and polls. Files and messages may be scanned or searched by keyword.

Costs: ChefNet offers a one-month free trial period after which the cost is \$8.95 per month. The monthly fee includes three hours of online time.

Registration:

Online preregistration is required to use ChefNet. You will get a trial account when you first log on. ChefNet personnel will contact you by voice phone during this trial period to set up a permanent account.

Modem Access:

To access ChefNet you need a computer, modem and communications software. ChefNet will send you a diskette to simplify communication if needed.

- a. Dial (218) 751-5149. Communications software settings are: 8 data bits, 1 stop bit, no parity, full duplex. Set terminal emulation to none, ASCII, or TTY.
- b. After the ChefNet welcome screen scrolls by, you will be asked to enter your name, or if you are a new user, type **new**.
- c. A new user will be prompted to answer questions about his screen and terminal type. Next enter your name and address and answer the short questionnaire regarding your affiliation with the foodservice industry. When prompted, enter a password of your choice.
- d. A menu of options will show on your screen. Type the one-letter command of the option you wish to select. For example:
 - Select "[F]...ChefNet Forums" to join current forums including "Professional Chef's Forum," "Culinary Student's Forum," "Front of the House Forum," "Culinary Arts Association," "National Exec. Chefs," "Computers and Software," "Chef's Menus," and "the Eco Kitchen."

Selected Electronic Sources of Food and Nutrition Information

- Select “[L]...Library of Files for Chefs” to upload or download computer shareware, graphics, menus, recipes, spreadsheets, and other files. To download files, choose “[D]...Download a file” from the file menu, then follow directions as prompted.
 - Select “[M]...Marketplace/Food Show” to list information on products, merchants, and product categories. You also may place product orders from this option.
- e. When prompted, type the one-letter command of any menu option. Type ? to get help, x to exit, or g to logoff.

For further information about ChefNet contact:

Gary Holleman
ChefNet Culinary Network Administrator
Voice: 1-800-346-7032

--OR--

Indian Harvest Specialtifooods, Inc.
P.O. Box 428
Bemidji, MN 56601

Restaurant Association Network

The Restaurant Association Network is the electronic news, information, and communication system of the National Restaurant Association (NRA), designed specifically for the foodservice industry.

A Daily Foodservice News feature provides a media scan of over 700 trade publications, newspapers, and wire services. Users can customize this service to search for specific publications or topics of interest.

The searchable DineLine Database contains thousands of abstracts on the foodservice industry. Using keywords, a user may produce a bibliography on any topic. Also available are price and commodity statistics, income statement ratios, and current economic trends.

The Government Affairs Daily Round-up allows users to read synopses of legislation affecting the foodservice industry. It also provides NRA position papers, state law summaries, and listings of key legislators.

Online directories include Foodservice and Suppliers Directory; Foodservice Software Suppliers Guide; and Consultant Services Directory.

Costs: The monthly subscription fee is \$48 plus online usage charges.

Registration:

Preregistration is required to use the Restaurant Association Network. Contact the NRA for an application and contract.

Access: To access the Restaurant Association Network, you need a computer, modem, and communications software.

For further information about the Restaurant Association Network contact:

Darian M. Patchin
Information, Inc.
Restaurant Association Network
7700 Old Georgetown Road
Bethesda, MD 20814-9547

Voice: (301) 215-4688
FAX: (301) 215-4600

Electronic Sources Resource List

Resources Available in Print

Badgett, Tom, and Corey Sandler. *Welcome to Internet: From Mystery to Mastery*. New York, NY: MIS Press, 1993. 324 pp.

Boardwatch Magazine. Littleton, CO: Jack Ricard. Published monthly. (8500 West Bowles Avenue #210, Littleton, CO 80123. (303) 973-6038. Covers development in PC boards and related equipment.)

Butler, Mark. *How to Use the Internet*. Emeryville, CA: Ziff-Davis Press, 1994. 145 pp.

CONNECT Magazine: The Modem User's Resource. Ann Arbor, MI: Pegasus Press, Inc. Bimonthly.

Dern, Daniel P. *The Internet Guide for New Users*. New York: McGraw Hill, 1994. 570 pp.

Dvorak, John C. *Dvorak's Guide to PC Telecommunications*. Berkeley, CA: Osborne-McGraw Hill, 1992. 2nd ed. 912 pp. plus diskette.

Eddings, Joshua. *How the Internet Works*. Emeryville, CA: Ziff-Davis Press, 1994.

Engst, Adam C. *Internet Starter Kit for the Macintosh*. Indianapolis, IN: Hayden Books, 1993. 641 pp.

Engst, Adam C., Corwin S. Low, and Michael A. Simon. *Internet Starter Kit for Windows*. Indianapolis, IN: Hayden Books, 1994. 608 pp.

Falk, Bennett. *The Internet Roadmap*. San Francisco, CA: Sybex, 1994. 263 pp.

Fisher, Sharon. *Riding the Internet Highway: Complete Guide to 21st Century Communications*. Carmel, IN: New Riders Publishing, 1993. 266 pp.

Fraase, Michael. *The PC Internet Tour Guide: Cruising the Internet the Easy Way*. Chapel Hill, NC: Ventana Press, 1994.

Fraase, Michael. *The Windows Internet Tour Guide: Cruising the Internet the Easy Way*. Chapel Hill, NC: Ventana Press, 1994.

Frey, Donnalyn and Rick Adams. *!%@: A Dictionary of Electronic Mail Addressing and Networks*. 4th ed. Sebastopol, CA: O'Reilly & Associates, Inc., July 1994.

Gilster, Paul. *The Internet Navigator: The Dial-Up User's Guide to the World's Largest Information Network*. New York: John Wiley and Sons.

Hahn, Harley and Rick Stout. *The Internet Complete Reference*. Berkeley, CA: Osborne-McGraw Hill, 1994. 817 pp.

Hahn, Harley and Rick Stout. *The Internet Yellow Pages*. Berkeley, CA: Osborne-McGraw Hill, 1994. 447 pp.

Internet World: The Magazine for Internet Users. Westport, CT: Mecklermedia Corporation. Published monthly except July/August and November/December.

Internet World's "on Internet 94": An International Guide to Electronic Journals, Newsletters, Texts, Discussion Lists, and Other Resources on the Internet. Westport, CT: Mecklermedia Corporation, 1994.

Kehoe, Brandan P. *Zen and the Art of the Internet: A Beginner's Guide to the Internet*. Englewood Cliffs, NJ: Prentice Hall, 1994. 3rd edition. 193 pp.

Kent, Peter. *The Complete Idiot's Guide to the Internet*. Indianapolis, IN: Alpha Books, 1994. 388 pp. plus diskette.

Krol, Ed. *The Whole Internet: User's Guide and Catalog*. Sebastopol, CA: O'Reilly & Associates, Inc., 1994. 2nd edition. 453 pp.

Lambert, Steve, and Walt Howe. *Internet Basics: Your Online Access to the Global Electronic Superhighway*. New York: Random House Electronic Publishing, 1993. 528 pp.

Selected Electronic Sources of Food and Nutrition Information

LaQuey, Tracy, and Jeanne C. Ryer. *The Internet Companion: A Beginner's Guide to Global Networking*. Reading MA: Addison Wesley Publishing Co., 1993. 196 pp.

LaQuey, Tracy, and Jeanne C. Ryer. *The Internet Companion Plus: A Beginner's Start-up Kit for Global Networking*. Reading MA: Addison Wesley Publishing Co., 1993. 197 pp. plus diskette.

Levine, John R., and Margaret Levine Young. *The Internet for Dummies Quick Reference*. San Mateo, CA: IDG Books Worldwide, Inc., 1994. 165 pp.

Maxwell, Christine, and Jan Grycz Czeslaw. *New Riders' Official Internet Yellow Pages*. Indianapolis, IN: New Riders' Publishing, 1994. 877 pp.

Motley, Lynne. *Modem U.S.A.: Low Cost & Free Online Sources for Information, Databases, & Electronic Bulletin Boards Via Personal Computer & Modem in 50 States & Washington, DC.* Allium Press, May 1993. 2nd. rev. ed. 224 pp.

Notess, Greg R. *Internet Access Providers: An International Resource Directory*. Westport, CT: Mecklermedia Corporation, April 1994. 309 pp.

Online Access Magazine. Chicago, IL: Chicago Fine Print, Inc. 10 issues per year. (Chicago Fine Print, Inc. 900 N. Franklin, Ste. 310, Chicago, IL 60610. 1-800-36-MODEM.)

Resnick, Rosalind. *Exploring the World of Online Services*. Alameda, CA: SYBEX, Inc., 1993. 300 pp.

Seiter, Charles. *The Internet for MACS for Dummies*. San Mateo, CA: IDG Books Worldwide, Inc., 1994. 291 pp.

Shipley, Chris. *How to Connect: Driver's Ed for the Information Highway*. Emeryville, CA: Ziff-Davis Press, December 1993. 240 pp.

Tennant, Roy; John Ober; and Anne G. Lipow. *Crossing the Internet Threshold: An Instructional Handbook*. Berkeley, CA: Library Solutions Press, 1993.

Tolhurst, William A.; Mary Ann Pike; and Keith A. Blanton. *Using the Internet: The Ultimate Guide to Getting Connected and Productive on the World's Largest Network*. Indianapolis, IN: QUE, 1994. 1188 pp. plus diskette.

Tuss, Joan. "Roadmaps to the Internet: Finding the Best Guidebook for Your Needs." *Online*, January 1994, pp. 14-26.

Veljkov, Mark, and George Hartnell. *Pocket Guides to the Internet*. Westport, CT: Mecklermedia Corporation.

Volume 1: Telnetting

Volume 2: Transferring Files with File Transfer Protocol (FTP)

Volume 3: Using and Navigating USENET

Volume 4: The Internet EMail System

Volume 5: Basic Internet Utilities

Volume 6: Terminal Connections

Wiggins, Rich. "The University of Minnesota's Internet Gopher System: A Tool for Accessing Network-Based Electronic Information." *The Public-Access Computer Systems Review* 4(2):4-60. 1993.

Wyatt, Allen L. *Success with Internet*. Las Vegas, NV: Jamsa Press, 1994.

Resources Available Electronically

Gopher

In addition to the resources cited above, full text publications, Internet guides, and information on computer networks can be found across the Internet. The following is only one example of resources available via gopher on the Internet. Gopher to **esusda.gov**. From the “Root gopher server: esusda.gov” menu, select “Other Gopher Information Servers”. Then select the following menu options: “North America”; “USA/”; “Michigan/”; “Clearinghouse of Subject-oriented Internet Resource Guides (UMich)/”; “Helpful Information on Using the Internet/”; “Computer Networks and Internet Guides (Rice U)/”. This directory of resources is updated weekly. Publications available include: *Big Dummy's Guide to the Internet*, by Adam Gaffin; *Special Internet Connections List*, by Scott Yanoff; and *Zen and the Art of the Internet: A Beginner's Guide to the Internet*, by Brandan P. Kehoe.

InterNIC

The **Internet Network Information Center (InterNIC)**, sponsored by the National Science Foundation, is a collaboration of efforts by three organizations: AT&T, General Atomics, and Network Solutions, Inc. Through InterNIC, these organizations provide the following services to Internet users: distributing information, worldwide network registration, and directory and database services.

InterNIC Information Services maintains InfoGuide, an online database which contains documents selected from a variety of resources across the Internet. InfoGuide expands, updates and replaces InterNIC's older server, InfoSource. InfoGuide provides pointers to Internet organizations as well as online resources. It includes descriptions of books, conferences, and seminars about the Internet; explanations of Internet tools; a current list of Network Service Providers; and descriptions of resources for sale by InterNIC. Information in the database ranges from very general information about the Internet and how to access and use it, to discipline-specific information packets. The database can be accessed by gopher at **is.internic.net** or through WWW at **<http://www.internic.net>**.

InterNIC also produces the *Scout Report*, a weekly publication focusing on new Internet resources and network activities. It is available by gopher at **is.internic.net** in /Information Services; by WWW (**<http://www.internic.net>**); and by e-mail (send to **major-domo@is.internic.net**; in the message body type **subscribe scout-report** followed by a space, followed by your e-mail address).

Information from InterNIC is available by postal mail, e-mail, phone, and FAX. For more information on InterNIC, contact:

InterNIC Information Services
General Atomics (GA)
P.O. Box 85608
San Diego, CA 92186-9784

Voice: (619) 455-4600
FAX: (619) 455-4640
Internet: refdesk@is.internic.net

Via E-mail

Earn Association. *The Guide to Network Resource Tools*. Copyright by the Earn Association, 1993-1994. Send e-mail to listserv@earncc.earn.net (or listserv@earncc.bitnet) containing only the line "Get Filename" where the filename is either: NETTOOLS.PS (Postscript) or NETTOOLS.TXT (plain text).

Gumprecht, Blake. *Internet Sources of Government Information*. October 1993. Send e-mail message to gumpbw@vm.temple.edu or to gumpbw@templevm.

Kaminski, Peter. *The Public Dialup Internet Access List (PDIAL)*. (Updated every few months). Send e-mail with subject line "send PDIAL" to info-deli-server@netcom.com.

Milles, Jim. *"Where to Start" for New Internet Users*. Send e-mail containing only the line "Get Newusers FAQ Nettrain F=Mail" to listserv@ubvm.cc.buffalo.edu.

Wiggins, Rich. "The University of Minnesota's Internet Gopher System: A Tool for Accessing Network-Based Electronic Information." *The Public-Access Computer Systems Review* 4(2):4-60. 1993. To retrieve this file send the following e-mail messages to listserv@uhupvm1 or to listserv@uhupvm1.uh.edu: GET WIGGINS1 PRV4N2 F=MAIL and GET WIGGINS2 PRV4N2 F=MAIL.

Zamfield's Wonderfully Incomplete, Complete Internet BBS List. Send e-mail request to Zamfield@Dune.EE.MsState.Edu.

Selected Commercial Service Providers

Some states provide Internet access for citizens through public libraries and universities. Check with your local library to find out about public service Internet connections in your area.

America Online, Inc.

8619 Westwood Center Dr.
Vienna, VA 22182
(703) 448-8700

CompuServe, Inc.

5000 Arlington Centre Blvd.
Columbus, OH 43220
(614) 457-8650

NewsNet, Inc.

945 Haverford Rd.
Bryn Mawr, PA 19010
(215) 527-8030

Prodigy Services Company

445 Hamilton Ave.
White Plains, NY 10601
(914) 993-8000

AlterNet

Voice: (800) 4UUNET3 or (800) 258-9691
Internet: alternet-info@uunet.uu.net; or alternet-info@alter.net
Area covered: U.S.; international

CERFnet

Voice: (800) 876-2373 or (619) 455-3900
FAX: (619) 455-3990
Internet: sales@cerf.net
Area covered: Western U.S.; international

CICnet

Voice: (800) 947-4754 or (313) 998-6703
FAX: (313) 998-6105
Internet: info@cicnet
Area covered: Midwest U.S. (Iowa, Indiana, Illinois, Michigan, Minnesota, Ohio, Wisconsin)

MIDnet Voice: (402) 472-7600
 FAX: (402) 472-5640
 Internet: nic@westie.mid.net
 Area covered: Middle U.S. (Arizona, Iowa, Kansas, Missouri, Nebraska, Oklahoma, South Dakota)

NEARnet Voice: (617) 873-8730
 FAX: (617) 873-5620
 Internet: nearnet@join@near.net
 Area covered: Northeastern U.S. (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York)

Northwestnet Voice: (206) 562-3000
 FAX: (206) 562-4822
 Internet: info@nwnet.net
 Area covered: Northwestern U.S. (Alaska, Idaho, Montana, North Dakota, Oregon, Washington)

PSCNET Voice: (412) 268-4960
 FAX: (412) 268-5832
 Internet: pscnet-admin@psc.edu
 Area covered: Eastern U.S. (Pennsylvania, Ohio, West Virginia)

PSINet Voice: (800) 82PSI82 or (703) 620-6651
 FAX: (703) 620-2430
 Internet: info@psi.com
 Area covered: U.S.; international

SURAnet Voice: (301) 982-4600
 FAX: (301) 982-4605
 Internet: kdonalds@sura.net (K. Donaldson)
 Area covered: Southeast U.S. (Alabama; Delaware; Florida; Georgia; Kentucky; Louisiana; Maryland; Mississippi; North Carolina; South Carolina; Tennessee; Virginia; Washington, DC; West Virginia)

Westnet Voice: (303) 491-7260
 FAX: (303) 491-1958
 Internet: pburns@yuma.acns.colostate.edu (P. Burns)
 Area covered: Western U.S. (Arizona, Colorado, Idaho, New Mexico, Utah, Wyoming)

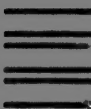


1022332500



1022332500

U.S. Department of Agriculture
National Agricultural Library
Beltsville, Maryland 20705
OFFICIAL BUSINESS
Penalty for Private Use, \$300



Postage and Fees Paid
United States
Department of Agriculture
AGR-101